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GENERAL INFORMATION

THE OFFICIAL

# ARMY INFORMATION DIGEST

U.S. ARMY MAGAZINE

DECEMBER 1950



# ARMY INFORMATION DIGEST



THE OFFICIAL MAGAZINE OF  
THE DEPARTMENT OF THE ARMY

The mission of ARMY INFORMATION DIGEST is to keep personnel of the Army aware of trends and developments of professional concern. The Digest is published under supervision of the Army Chief of Information to provide timely and authoritative information on policies, plans, operations, and technical developments of the Department of the Army to the Active Army, Army National Guard, and Army Reserve. It also serves as a vehicle for timely expression of the views of the Secretary of the Army and the Chief of Staff and assists in the achievement of information objectives of the Army.

Manuscripts on subjects of general interest to Army personnel are invited. Direct communication is authorized to: The Editor, ARMY INFORMATION DIGEST, Cameron Station, Alexandria, Va.

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## COVER

**LEADERSHIP** qualities are tempered, tested and developed at the human proving ground known as Officer Candidate School. Fort Benning Infantry training which leads to commissioned status is described in "Take Over, Lieutenant."

# COMMAND LINE

## Army Views On Vital Issues

### ON THE SPIRITUAL SIDE

"It may surprise you to learn that the percentage of chapel attendance in the Army exceeds the percentage of church attendance in civilian communities. I have just received a report which shows that in the fiscal year which ended 30 June 1959, our chapel attendance was in excess of 20 million. Other pastoral ministries of the chaplains served a total of 12 million people. In addition they gave character guidance lectures to an aggregate of 7 million officers and men. These are monumental achievements which are today making a better Army and better citizens for the future."

*Secretary of the Army Wilber M. Brucker  
at Winona Lake, Indiana, Bible Conference  
7 September 1959*

### ON THE EITHER/OR CAPABILITY

"Whether or not nuclear weapons may be used tactically in situations short of general nuclear war, it seems clear that whenever Army forces are committed to action in the future, the threat of the introduction of nuclear weapons to the battlefield will be present. This situation imposes on the Army the requirement for a dual capability of fighting under either non-atomic or atomic conditions.

"The Army must be able to make a quick transition from one condition to the other. Its logistical system must be capable of continuing support under either circumstance. These considerations combine to create heavy demands on the soldier—not only the frontline doughboy but also those men who must maintain and move forward to the fighting troops all the impedimenta of modern war."

*General G. H. Decker, Army Vice Chief of Staff  
before the National Security Commission  
at the American Legion, Minneapolis, Minnesota  
23 August 1959*

### ON THE KEY FACTOR

"No matter how effective or lethal we make our weapons, the limiting factor in the use of weapons is man himself. Basic research into what we call man-machine compatibility—so that the machine is not the master of the man but the man can really be the master of the machine—is essential if we are going to have complex but reliable weapons that can be maintained and operated over long periods of time."

*Lieutenant General Arthur G. Trudeau  
Chief of Army Research and Development  
before the 5007th USAR R&D Unit  
Minneapolis, Minnesota, 16 March 1959*

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THE OFFICIAL

**ARMY**  
INFORMATION  
**DIGEST**

U. S. ARMY MAGAZINE

DECEMBER 1959



**THE HONORABLE WILBER M. BRUCKER**  
**Secretary of the Army**

**"ONE ARMY"** is an increasingly important concept to the United States Army in our concerted effort to provide and maintain the most competent ground combat force possible with the manpower and material resources placed at our disposal. The concept has its roots deep in our history, and it stands today as a constant reminder that our strength is now, more than ever before, measured by our ability to work together.

In wartime, we have achieved "One Army" unity without giving it particular thought. The combined thinking and efforts of all branches and all components, working as a team under the stress of wartime demands, has been the key to our victories in battle.

During the actual months of combat, when men shared the rigors, dangers, and accomplishments of war together, there has been unity of spirit, purpose, and action.

But this unity was always achieved *after* war began. We were fortunate in being so far separated from immediate danger by time and space that we were able to overcome service rivalries and parochial separation while welding our forces for commitment to combat.

We cannot rely on such a period of grace again. We cannot wait for the first shot to be fired, or the first bomb to be dropped. By then it would be too late. We must achieve today a wartime unity of spirit throughout the Army and the Armed Services—throughout the entire Nation, in fact.



# ARMY"--



# TEAM

THE team principle is fundamental to all our military efforts. Our interdependent Army, Navy, Marines, and Air Force work together to maintain the tridimensional power necessary to deal with an enemy on land, at sea, or in the air. Each member has a specific and essential role. Each complements and supplements the others.

In a like manner, the Army must be a unified fighting team which draws in full measure upon the characteristics of each arm and service. No single branch of the Army is self-sufficient. Each has special capabilities, experience, and skills which, when combined properly with those of other branches, produce the singleness of effort that will be necessary for victory on the battlefields of any future war.

No member of the Army can afford to compartmentalize his thinking, and consider only his own branch, his own service, or his own component. He must visualize the military picture as a whole—not just his particular part of it—and with that vision as his guide, work in complete harmony with all concerned to achieve a single, positive result. The traditional wall which once separated the various Army branches and components has become completely outmoded.

The importance today of the citizen-soldier to the Active Army cannot be overestimated. Since it is impracticable to maintain an Active Army of sufficient size to deal with all the possible emergencies which our potential enemies might create, our Army National Guard and Army Reserve must be maintained in a constant state of combat readiness so that they can be deployed as integral parts of our active forces with the least possible delay. For this reason, standards of training and performance must be equally rigorous as they apply to each individual element of the



Army. Each man and each unit must be fully prepared to meet wartime responsibilities without reference to which component is involved.

This does not apply alone to training and performance, but to the fundamental spirit in which we serve. There must be complete acceptance of the concept that the Active Army, the Army Reserve, and the Army National Guard constitute *one* dynamic team, each member an indispensable military element of our defense. Each plays an essential role in an organization which has but *one* purpose, *one* mission, *one* reason for its existence—to be poised and ready to meet any threat which might be hurled at our national security.

As General Bruce Clarke, the Commanding General of our Continental Army Command, recently said: "The ground combat soldier is not a Guardsman, nor a Regular, nor a Reservist, nor a Selectee—he is simply the American fighting man on the One Army Team."

I WISH to make it emphatically clear that there is not the slightest intention of dispensing with our present Army system which has grown and developed throughout our history as a part of the American way. The long and distinguished records of our components furnish a solid foundation for "One Army." Many of our Active Army, Army National Guard, and Army Reserve units are heirs to a gallant tradition of service to the Nation dating back in many cases to the War of Independence. Nothing will be done to weaken or destroy these invaluable sources of pride and esprit. There is, however, an urgent necessity to increase confidence and mutual trust among all components and branches of the Army, and thus present the single image of the SOLDIER, regardless of the component in which he serves. As surely as we have "one

Nation indivisible," so must we have "one Army indivisible"!

In order to accomplish our "One Army" objective there must be a high degree of sincerity, a common determination to achieve a new spirit of unity throughout our various components, arms, and services. We must all—regulars and reserves, civilian and military, infantrymen and engineers, active and retired—close ranks and strive in fact as well as in theory for a true unity of effort, purpose, and spirit. Only by so doing will we be able to weld all units, components, and elements into the most effective fighting force for America's defense.

I charge each member of the Army to use his individual talent at every opportunity to help arouse in the American people at the grass roots—where it counts most—a clear consciousness of the tremendous importance of the Army's mission. You can portray what the Army means to each one of you personally as a principal defender of the Nation in this period of great peril to all you hold dear. I trust that you will become vocal and articulate. We can accomplish wonders if we become fighting advocates of the "One Army" to which we belong—the "One Army" upon which in such large measure rests America's security.

Make the dedicated spirit of the "One Army" you represent felt in your community with full force. Make the single image of the SOLDIER, the valiant defender of the United States throughout its history, stand out in the minds of everyone with whom you come in contact. Make the imperative necessity for Army forces, adequate to protect America and American interests under any circumstances, realized and understood right down to the last home at the most remote cross-roads of the land.

I know you *can* do it. I am confident that you *will* do it.

**"ONE ARMY"**



**ONE TEAM**

**"ONE ARMY"**



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**"ONE ARMY"**



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**ONE TEAM**

*"... to develop leaders who  
without further training  
can successfully lead  
men in combat."*



**TAKE OVER, L**

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# LIEUTENANT!

**I**N THE assigned mission of Fort Benning's Infantry Officer Candidate School, a singular phrase deserves special attention. This phrase, *without further training*, is one which might easily be overlooked by the casual reader, but it serves to illustrate a unique—and highly important—feature of the Army officer candidate program.

Among our principal pre-commission training programs, the OC course alone can boast of a product who, upon graduation, is ready without further training to assume command of a tactical unit on the battlefield. For despite the excellence of the other sources of officer procurement—the United States Military Academy at West Point, the ROTC, and the National Guard State Officer Candidate Program—their graduates all require either further military schooling or the acquisition of additional experience before they are ready to take command of a unit in combat.

The OCS curriculum combines theoretical instruction with down-to-earth, practical application and experience. It acquaints the candi-

date not only with the ideas for superior leadership, but with the means and techniques for carrying them out.

For six months his determination is tried, his mind taxed and his body tested. In a very practical way he learns the real meaning of command responsibility by leading a squad, a platoon and a company in garrison and in the field. He graduates knowing that a combat leader earns that salute by his sweat and by his competence.

THE OC course offers selected personnel the opportunity of becoming commissioned officers in the Army of the United States. Any physically qualified man of average intelligence should be able to complete the course if, throughout the training, he demonstrates that he is sufficiently motivated to meet the challenge and assume the responsibilities of troop command.

Proper motivation is the most important prerequisite for any candidate who wishes to win his gold bars. For the candidate who does, the transition from enlisted man to



## **Take Over, Lieutenant!**

officer represents a period of self-inquiry, self-discipline, and increasing self-assurance. In the end he knows what is expected of him as an officer and what he can expect of himself as a man.

WHAT can the candidate expect of OCS—what kind of treatment, what kind of training? In the first place, nothing short of perfection is acceptable; and the fact that perfection is demanded from the start leads to perfection at the finish.

No man—no matter if he comes from a leadership assignment in a tactical unit, from a technical or administrative position, or directly from basic training—is prepared for that first day. Countless details of discipline and bearing crowd the brain of the newly arrived candidate. The confusion of signing-in and initial processing is magnified by the spotlessness of the barracks and the echoes of command and reprimand in the corridors.

There is method in it, however, and unmistakable benefit for each candidate. After two weeks of acclimation he grows in confidence and composure; he begins to perceive that discipline and competition are the ways of life at OCS. If at first he feels lost, he is not alone. Regardless of previous education, experience or military rank, candi-

dates are given an equal status once they enter the door. Master Sergeant and Private alike become "Candidate," and from that point on the only recognition they are granted is what they individually earn through demonstrated competence.

From the moment the candidate first sews on his OCS patch until the day he dons the gold bars of a second lieutenant, he is closely—and critically—scrutinized. He is the subject of an extensive, carefully conceived evaluation system which forms the very bedrock of the program's success.

Each time the candidate performs a mission or otherwise comes to the attention of the tactical officer, a report of observation is prepared. These reports are not evaluations, but statements of facts outlining the good and the poor features of the candidate's performance. When a sufficient number of these reports accumulates, the tactical officer conducts a counseling period for the purpose of guiding the candidate in the right direction, helping him to eliminate undesirable traits and substituting more positive ones in their place.

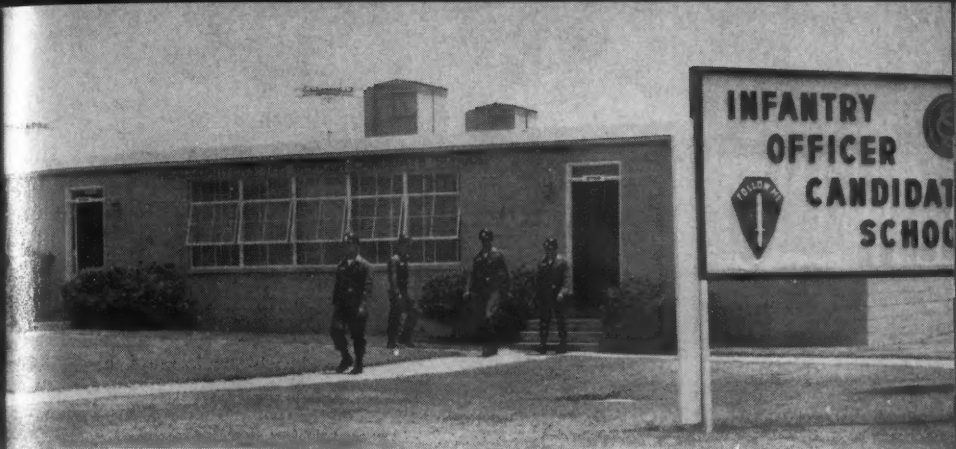
### **Leadership Rating**

THE leadership ability of each candidate is assessed four times



**MAJOR GENERAL PAUL L. FREEMAN, JR.**

**Commandant, U. S. Army Infantry School  
Fort Benning, Georgia**



Familiar to all attending OCS is headquarters building, where first impressions are made that will serve as a guide through course leading to coveted gold bars.

during the course by his fellow candidates, who know him perhaps better than anyone else, for they train, work and live with him 24 hours a day. The candidate also is rated four times by his tactical officer, whose added experience and supervisory relationship with the candidate help to provide a more seasoned picture of his ability. Finally, two leadership ratings of each candidate are prepared by the cadre company commander, whose broader military background and relatively detached position tend to produce an objective appraisal of the candidate's potential in comparison with his classmates.

The success of the rating system depends largely on the tactical officer. Evaluation is his job. This man, an experienced platoon leader himself, is the strict critic of each candidate under his supervision. He appraises the candidate's progress, corrects his weakness and challenges his strengths.

Because the tactical officer is a man who wears his bars proudly, he makes certain that no one gets through OCS who doesn't truly deserve to become a commissioned

officer. Each tactical officer represents and upholds the traditions of which OCS is proud—preparing the best men to do their best without further training.

THE phrase is not just a slogan. For the man at OCS it embodies a grave challenge. A tough schedule introduces every candidate to both the latest military know-how and the realistic problems of company-level leadership. The curriculum emphasizes practical work in the field so that each candidate is required to make practical use of the theories learned in class.

The candidate is rated four times by his tactical officer who appraises his progress, corrects his weakness and challenges his strength.





"No man . . . is prepared for that first day, as countless details of discipline and bearing crowd the brain of newly arrived candidate."

Each candidate receives instruction in all weapons of the Infantry battle group, and he is expected to qualify with the M1, the automatic rifle and the machinegun. Many hours are devoted to platoon and company tactics in which combinations of weapons must be employed. Each candidate is responsible for the control of his unit, for its effective combat operation and coordination with adjacent units.

Because he will operate on the battlefield as a member of a combined-arms team, the candidate is given instruction in the operation of supporting arms and services. The courses in signal communications and ground mobility are designed to teach the candidate how to inspect, maintain and employ the equipment assigned to the battle group. Other basic subjects in

his curriculum include personnel administration, intelligence, the theory of leadership, operations and logistics, and practice in map reading, drill, physical training and Army social customs.

The OCS academic program is exceptional for the emphasis placed on practical experience. OCS graduates are men who know the meaning of a command voice, men who know from experience how to conduct dismounted drill or give a class in physical training. These men understand tactics and how to make best use of available firepower; they know well that the ground to be covered is frequently rough, wet and desolate.

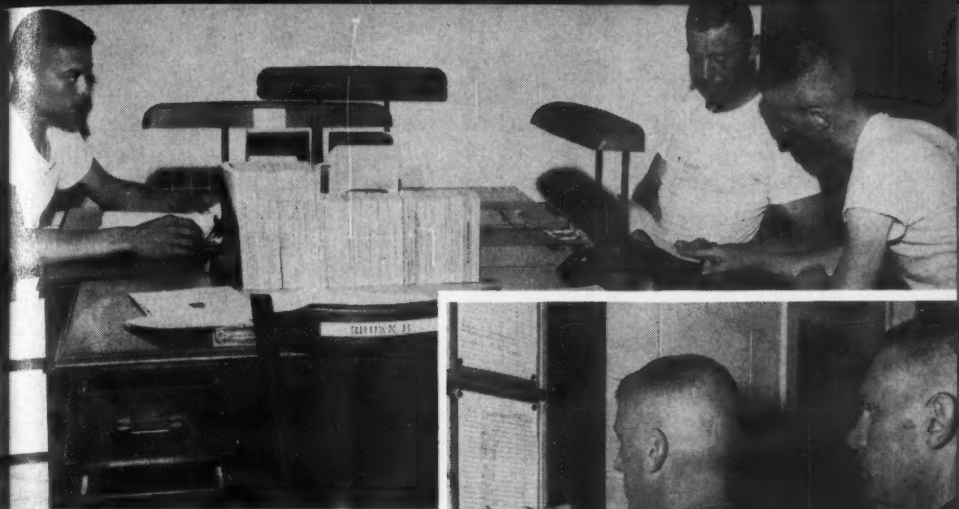
### Command Principles

THROUGHOUT the OC course instructors emphasize that regardless of the size of the unit, the fundamental principles of tactical command remain the same. The candidate learns that the success of a combat leader at any unit level involves three cardinal principles:

*First* — leadership, an inherent requirement of the military profession. He learns that leadership qualities can be developed and that an individual's leadership ability should continue to grow as he matures and gains greater knowledge and experience.

*Second*—a thorough knowledge of the tools of the trade. These, he comes to realize, are first and above all, his men, their capabilities and limitations; the weapons and equipment with which the battle is fought; the organization and administration by which the unit is generated and maintained.

*Third* — the forces of nature which affect the battle. He gains



Candidate companies have own chain of command where every man learns vast amount of administrative detail demanded of officers.

an intuitive appreciation of terrain; the limitations of visibility; a respect for natural obstacles and the adversities of climate and weather. He knows that once he truly understands these fundamentals, they will serve him well whether he commands a platoon or an army.

ONE essential area of training which receives specific emphasis is company-level leadership. When a new OC class arrives at Fort Benning, the candidates are organized into a student company of six platoons ranging from twenty-five to thirty men each. The candidate company has its own student chain of command from student company commander to squad leader. These positions are rotated twice weekly to allow each candidate to serve in a leadership assignment approximately every fifteen days.

In the OCS "Hall of Fame," portraits of outstanding graduates line the walls, providing inspiration for those who are to follow them.



Every man is made aware, perhaps for the first time, of the wealth of administrative details which consume an officer's day. The student company commander, for example, finds himself responsible for getting his men up on





## **Take Over, Lieutenant!**

time, for setting up a messing schedule and assigning details. If vehicles are required, he must spot them and plan transportation routes. At all times he is accountable for the whereabouts and activities of his men. Each day in command is clouded by the realization that a "column right" instead of a "column left" may mean the difference between sticking to schedule and missing supper.

### **Training Phases**

THE OC course is divided into three phases which mark the progressive increase of each candidate's responsibility. As a "plebe" for the first eight weeks, the candidate learns the meaning of OCS perfection. More is expected of him, and he produces more than ever before in his life. And this is just the beginning.

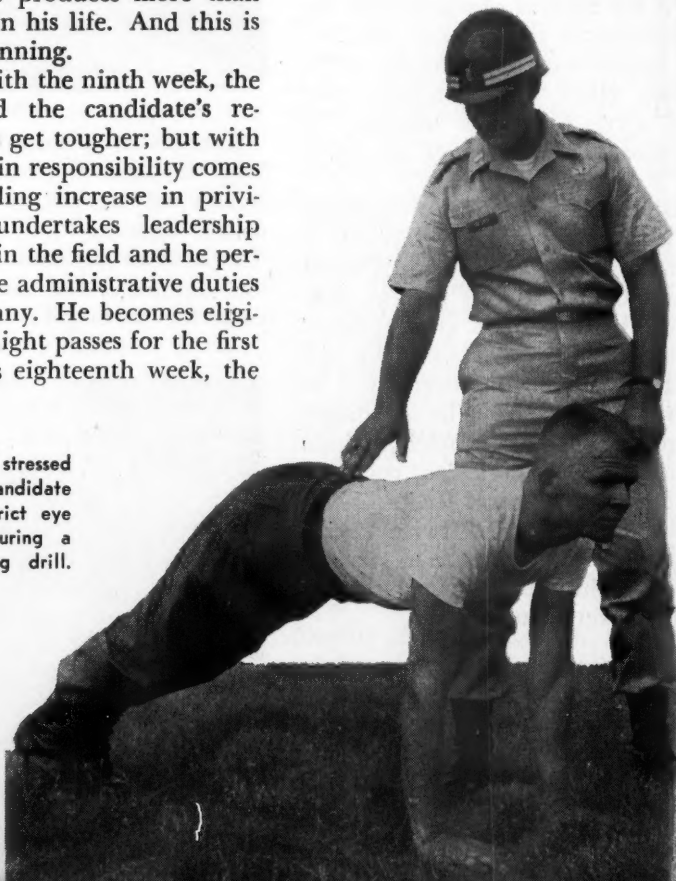
Starting with the ninth week, the training and the candidate's responsibilities get tougher; but with the increase in responsibility comes a corresponding increase in privileges. He undertakes leadership assignments in the field and he performs routine administrative duties in the company. He becomes eligible for overnight passes for the first time. By his eighteenth week, the

candidate is prepared to teach a class or tackle the responsibilities of a company commander.

The eighteenth week marks a turning point in the candidate training—a point symbolized by the "turning blue" ceremony and the attainment of senior status. The senior candidate is distinguished by his blue helmet liner and shoulder tabs, which merit for him the salute and "Sir" from his juniors. In his last weeks at OCS, the candidate has learned the feel of responsibility; as he nears graduation he begins to live with it.

NO officer training program would be complete if it overlooked the social aspects of Army life. So

Perfection is stressed everywhere, as candidate learns under strict eye of instructor during a physical training drill.



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"For six months his determination is tried, his body tested... A combat leader earns that salute by his sweat and by his competence."

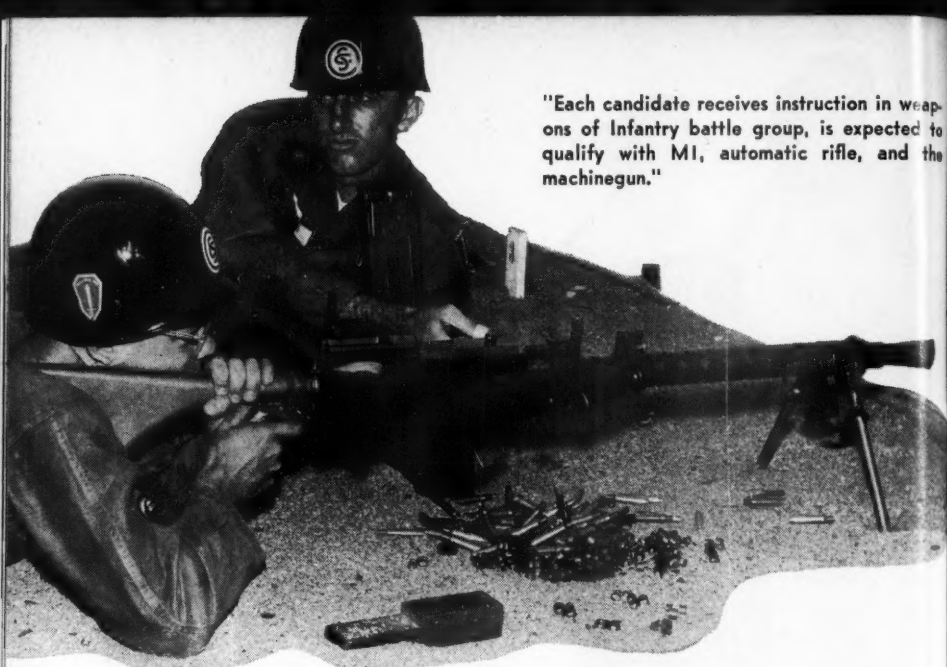
that the candidate will be prepared to assume his social obligations at his new station, the OC course includes a variety of official social functions, such as cocktail parties, receptions and formal dances. If the candidate is married, his wife is invited to join the OCS wives' club. She attends bimonthly coffees sponsored by the battalion officers' wives and is acquainted

with the military customs and social traditions which will soon become an important part of her life.

After months of hard work comes the high point in any candidate's life—the day of graduation. This is truly the commencement of the graduate's new role and new challenge toward which all his training has been oriented. The new officer is rightly proud of his

Discipline is demanded from the start. Even at meals the candidate is required to maintain a military bearing.





"Each candidate receives instruction in weapons of Infantry battle group, is expected to qualify with M1, automatic rifle, and the machinegun."

gold bars. They symbolize his accomplishments and single him out as a man physically, mentally and morally fit for the responsibilities of command.

Graduation day is a day filled with pride and elation. Each new lieutenant feels he has reached a professional milestone. It is at the same time an end and a beginning. He looks back with a deep feeling of satisfaction on the weeks at OCS and now realizes all that they have meant to him. He looks forward to a new career of increased

responsibility and opportunity. He thinks of the new paths before him and of the distinguished soldiers who have moved along those paths in the past.

All members of the graduating class are awarded Reserve commissions. Those students in the upper ten percent of their class who have demonstrated outstanding leadership ability and who possess a long-range potential for military service are designated distinguished graduates. If these officers meet the educational requirements, they are



Field leadership jobs, such as mess officer, alternate with the routines of performing company administrative duties.



"Many hours are devoted to platoon and company tactics. . . Each candidate is responsible for control of his unit, for effective combat operations and coordination with adjacent units."

virtually assured of receiving commissions in the Regular Army upon application.

Once assigned to a unit, the OCS graduate — more than any other newly commissioned officer — can concentrate on the job for which he was groomed. He can be trusted with command because he knows its implications from hard-won personal experience.

The officer from OCS is one who understands that soldiering is more guts than glamor—and his accom-

plishments prove it. Any commander in the field can welcome this man to his unit, can have faith in his tested ability, and can give him a mission and be confident that it will be capably performed.

Only time will tell whether today's OCS graduates will develop and become the corps and army commanders of the future, but meanwhile OCS will continue to produce superb platoon leaders who without further training can successfully lead men in combat.



New uniforms are pridefully inspected on graduation day. Left, General Freeman takes salute during the senior status review.

**An experiment in military education pays life-saving dividends in Second U. S. Army's**



## **FOR HEADQUARTERS STAFF OFFICERS**

**SFC Ralph J. Crawford**

**O**FFICERS in Second U. S. Army Headquarters are currently engaged in a unique experiment in military education—an experiment which could, in the event of war, pay life-saving dividends to individual officers, the men they com-

*SERGEANT FIRST CLASS RALPH J. CRAWFORD is on the staff of Information Section, Headquarters, Second United States Army.*

mand, and the Army as a whole.

Despite its formidable title—Professional Military Seminar Program—the experiment is essentially nothing more than a monthly series of two-hour seminars designed to keep headquarters staff officers fully abreast of current military developments in tactics, organization, logistics, and other military arts. The

seminars are designed as an educational bridge—a practical means of filling the gap between formal service school training and training attained through individual effort—e.g., reading professional magazines, correspondence courses, and the like.

TODAY'S program had its genesis in a piece of paper and an idea. The paper was a copy of a speech made by General Bruce C. Clarke in which the Commanding General of U. S. Continental Army Command stated:

"The drastic change in tactical concepts demands a renovation in the professional education of every soldier in the Army—particularly the Army officers. Entirely new formations, patterns of deployment, and troop-leading procedures must be mastered. . . .

"The personal responsibility for keeping up-to-date professionally is just as compelling. . . . As some saw during the early months of Korea, there won't be time to give special refresher courses to officers who neglect this responsibility. So they imperil their future units and themselves if they don't live up to it now."

The idea was simply a recognition by a group of young staff officers that the need for such a "renovation" in the Army educational system was perhaps most acute in the area of keeping so-called "chair-borne" and desk-bound officers up-to-date in their professional knowledge.

The reasoning of the group was in general accord along these lines—that while officers in troop units are able to keep up-to-date with relative ease, this is often not the

case for staff officers in a large headquarters. Except for off-duty reading or, in exceptional cases, a refresher tour at a service school, the average staff officer finds comparatively few opportunities for keeping abreast of frequent changes in tactics, organization, and the like. In some cases, the staff officer works in an area removed from his professional specialty; in other cases the daily job is so compartmented that, after a three-year tour, he finds that he has lost touch with current doctrinal trends.

TO resolve this problem, a program of professional seminars was developed at the direction of Lieutenant General George W. Read, Jr., Second Army Commander, based upon a proposal by Colonel Andy A. Lipscomb, then Second Army G-3.

The official "go-ahead" took the form of a Second U. S. Army staff memorandum, which described the scope of the program in these terms:

"The objective of the seminar program is to assist officers assigned to this headquarters in keeping abreast of professional military developments. While the maintaining of up-to-date professional knowledge is a personal responsibility, it is recognized that rapid technological changes and compartmented staff assignments often militate against fulfilling this responsibility. Accordingly, monthly seminars will be conducted on the Command and General Staff College-War College level . . . to emphasize new developments and insure that officers remain abreast of changes in tactics, organization, logistics, and other fields."

The G-3 was given supervisory





Preparing for a forthcoming seminar, Col. James L. Massey, center, looks over training aids with assistance of Lt. Col. J. B. Franklin, left, and Lt. Col. B. T. Wright.

responsibility, and two project officers were designated.

THE first two seminars dealt with "Organization and Offensive and Defensive Tactics of ROCID (Reorganization of the Current Infantry Division)" and "New U. S. Army Weapons, Including Small Arms, Artillery, and Nuclear Weapons." These were enthusiastically received to the degree that other headquarters have asked that they be included in the program.

Use of training aids in the presentations was particularly outstanding. The seminars utilized numerous training devices, among them film clips, dramatic skits, tape-recorded conversations, and three dimensional view-graph transparencies, produced by technicians at Second Army Training Aids Sub-Center.

One of the technical highlights of the presentation was the use of "Technamation," a comparatively new patented process which uses a revolving plexiglass disc and specially treated view-graph transparencies to bring to life troop movements, artillery fires, and atomic strikes.

Army Service Schools also lend support to the program, which is being implemented in monthly two-hour sessions. Each program is given twice to permit maximum attendance by the nearly three hundred officers assigned to Second Army Headquarters.

Subjects scheduled for seminar treatment in the near future include: trends in logistical support; rear area security and damage control; corps tactics; new chemical, biological, and radiological developments; current trends in Soviet

Finished training aids are carefully checked, and then made available for instructional use in a seminar session.



organization and tactics; organization of ROCAD (Reorganization of the Current Armored Division) and ROTAD (Reorganization of the Airborne Division); and new developments in United States combat surveillance and electronic warfare.

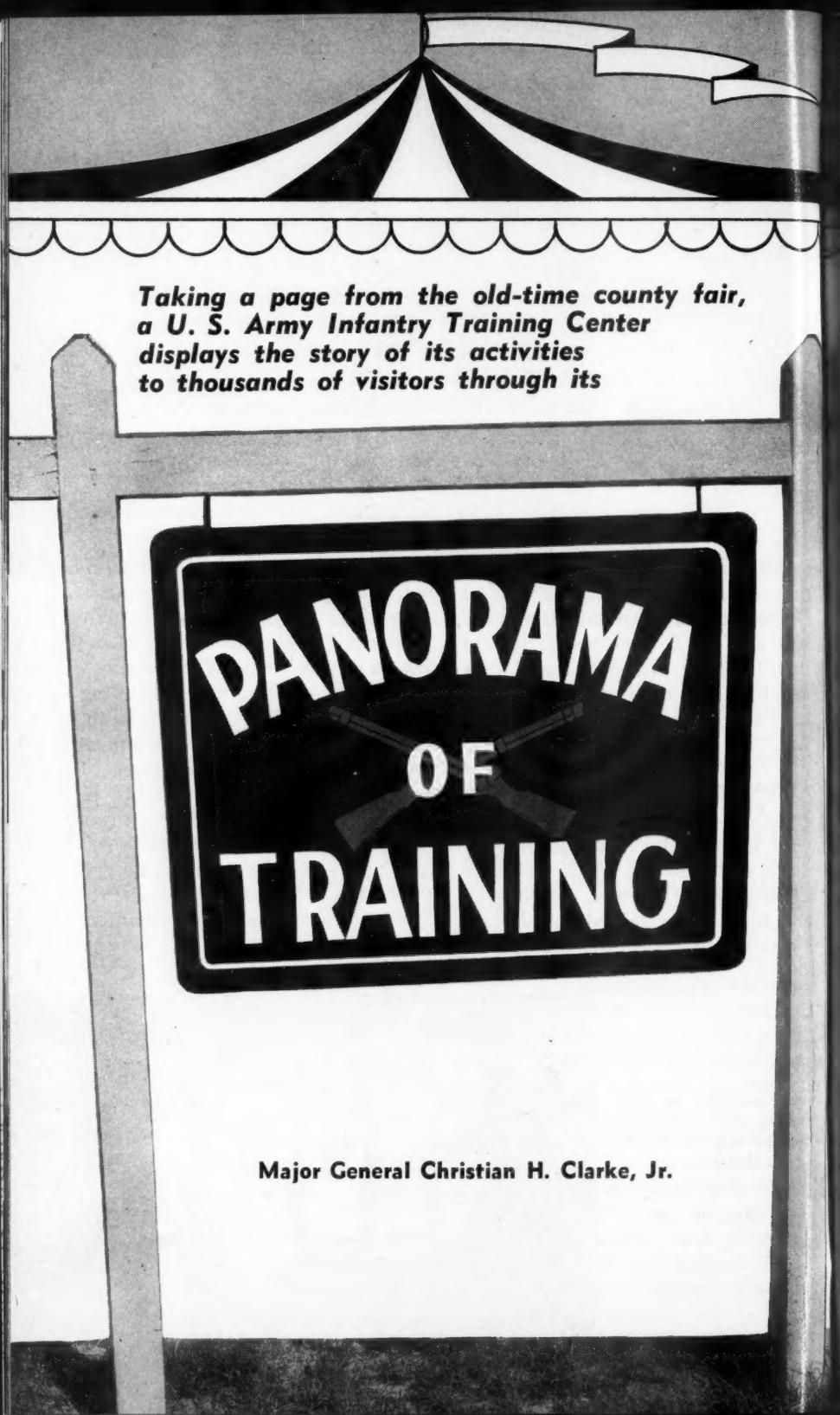
**BENEFITS** of the seminar program, its enthusiasts point out, extend beyond the instructional value to the students. Much valuable experience in briefing, instructing, and planning is gained by the individuals responsible for the presen-

tations. As an additional by-product, the give-and-take of seminar discussions engenders in the participants a greater awareness of being an integral part of "One Army."

As evidenced by their continuing interest and spirited participation, officers of Second Army headquarters have shown a high degree of enthusiasm in the program. If, as the experts maintain, the battle is the pay-off, then the mental alertness and readiness fostered by the Professional Military Seminar Program is one sure way of guaranteeing the outcome.

Early seminars, as one dealing with ROCID, brought requests from other headquarters to join the programs.

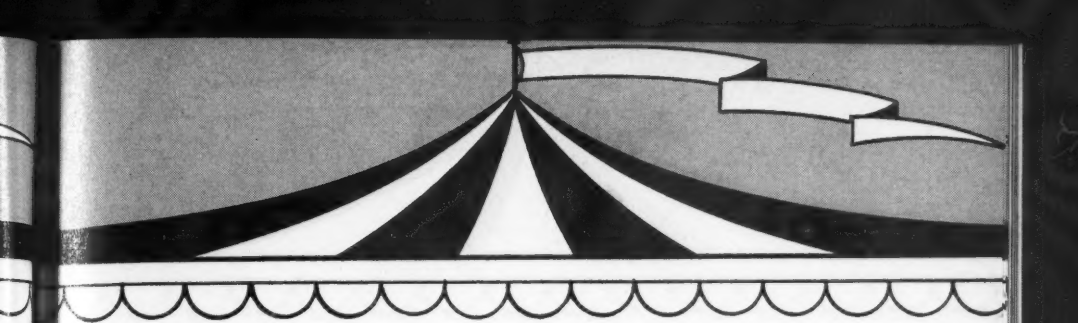




*Taking a page from the old-time county fair,  
a U. S. Army Infantry Training Center  
displays the story of its activities  
to thousands of visitors through its*

# PANORAMA OF TRAINING

**Major General Christian H. Clarke, Jr.**



**F**OLLOWING a recent visit to the U. S. Army Infantry Training Center at Fort Jackson, South Carolina, the South Carolina House of Representatives with Senate concurrence, passed a resolution which read in part:

"... Members of the General Assembly left Fort Jackson with . . . a feeling of supreme satisfaction in the knowledge that this segment of our youth is in such safe, sane and competent hands; and . . . the Members of the General Assembly believe that if all segments of our Armed Forces are as well trained and have the same high degree of morale, our safety is assured for a long time to come . . ."

THOSE of us charged with the training of new soldiers know, of course, that the same conditions exist at all Training Centers and, for that matter, throughout the entire United States Army. But to show the thousands of visitors—largely parents, relatives or close friends of the new soldiers undergoing training—the entire 90-square mile reservation and its far-flung activities, to assure that these visitors gain the same knowledge that the legislators obtained, is an undertaking which could be enormously time-consuming and costly.

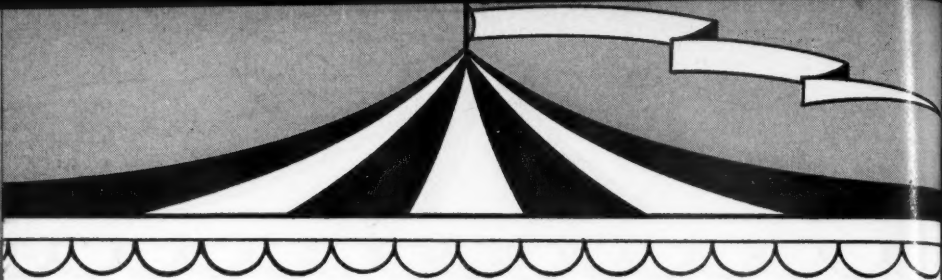
To provide these visitors—many of them officers from various U. S.

Army Commands and from armed forces of our allies, as well as local businessmen, clergymen, educators and other thought leaders—with the equivalent of an extended tour in capsule form, the idea of a "county fair" type of exhibit was evolved. It has proved to be a most economical, efficient and persuasive means for a military installation—or even for a major unit on some installation—to tell its story to large numbers of people.

Set up under five open-sided tents, it is called "Panorama of Training." Here visitors can learn more in a few hours about Fort Jackson activities than could be derived from several days' travel over this 56,000-acre reservation.

INSTALLED five years ago, the Panorama cost about \$11,000 to build, including tentage. Since then, more than a quarter of a million visitors have passed through it. This represents an outlay of about four cents a visitor—certainly far less than the cost of a direct mail pamphlet addressed to an equal number of people, yet one that carries more dramatic, direct personal impact.

Each tent or area can be toured in about the same time. Thus large groups can be divided up to start simultaneously in different tents, with everybody completing the



exhibits at the same time. When not in actual use, electrical connections, tent pegs, sign hangers and so on are left in place, so that the entire exhibit can be set up in about four hours.

A bonus for this type of exhibit is that it can serve as a touring display. Fourteen 28-foot trailers move the entire Panorama—or various sections may be used to fit space available at fairs or other exhibit areas. For easy transportability, displays are standardized—tables are eight feet long and two feet wide; all easels and signs are of standard size also.

While this exhibit plan is ideally suited to a large installation, smaller units also could make good use of the idea on a scale suited to their size and mission. As a budgetary guide, the commander planning such an exhibit might calculate the probable number of persons who would see the exhibit in two

years, then multiply by five cents. This should give the sum that might profitably be invested in a visual exhibit. Smaller units can frequently make use of scrap material in construction, and the finished exhibit can be effectively displayed in a small area such as a class room.

REALIZING that it is impossible for every commander to visit Fort Jackson to see at first hand this Panorama and how it is set up, let me take you on a guided picture tour.

At the starting point, visitors receive a briefing by an officer who explains the post's missions and how the various activities on display fit into the overall picture. These briefings can be expanded or condensed according to the military experience and general educational level of any particular group.

The group then proceeds to ►



**MAJOR GENERAL  
CHRISTIAN H. CLARKE, JR.**

**Commanding General  
U. S. Army Infantry Training Center  
Fort Jackson, South Carolina**



Briefing



# ORGANIZATION OF THE UNITED STATES ARMY TRAINING CENTER INFANTRY

FOR

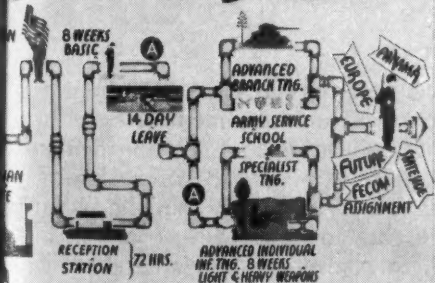
HQ  
USATC  
INF

TNG

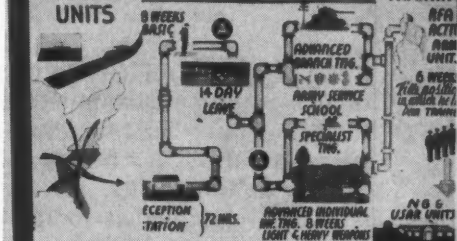
TNG REGT	2 TNG REGT	3 TNG REGT	4 TNG REGT	5 TNG REGT
GEN SUBJECTS AND TACTICS BASIC ACTIVE ARMY & RFA	WEAPONS BASIC ACTIVE ARMY & RFA	GEN SUBJECTS WPNS & TACTICS ADV ACTIVE ARMY RFA & RFA UNITS	COMMON SPEC COURSES ACTIVE ARMY & RFA	COMBAT INDOCTRINATION BASIC ACTIVE ARMY & RFA

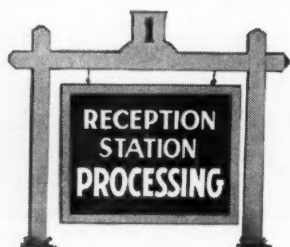
VISITORS RECEIVE  
QUICK BRIEFING  
ON ORGANIZATION,  
PROCESSING, PATTERN  
OF RESERVE PROGRAM.

## Civilian to Soldier

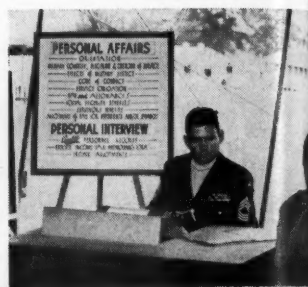


## NG & USAR UNITS RFA PROGRAM UNIT TRAINING





PERSONAL AFFAIRS  
INTERVIEW.

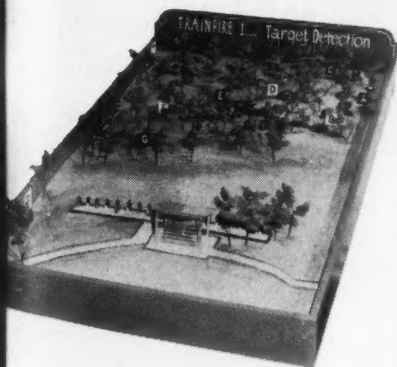


CLASSIFICATION AND  
TESTING PROCEDURES.

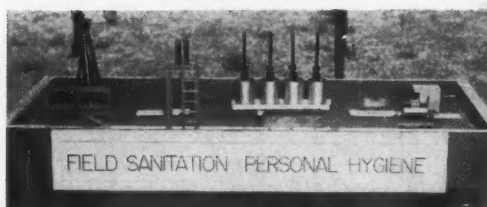


INITIAL ISSUE OF  
CLOTHING AND EQUIPMENT.

**RECEPTION STATION PROCESSING** that normally takes 72 hours is condensed into a 20-minute presentation. Visitors see medical examinations, including immunization shots. Classification and Testing demonstrate that the Army makes a sincere effort to place each individual according to his abilities. Personal Affairs interviews show that the recruit is given a clear understanding of his rights and benefits—as well as his responsibility to contribute personally to a strong Army. At the Initial Issue of Clothing and Equipment booth, spectators are shown how the Army slogan “Best Dressed Soldier in the World” becomes reality.



INDIVIDUAL WEAPONS INCLUDE  
HAND AND RIFLE GRENADE.



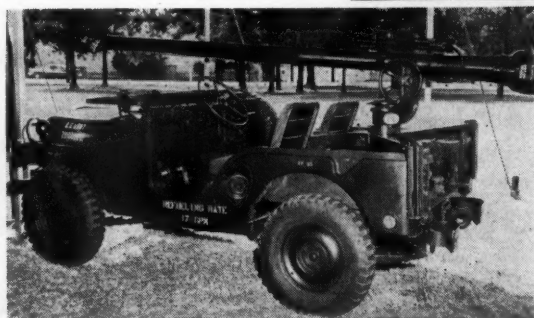
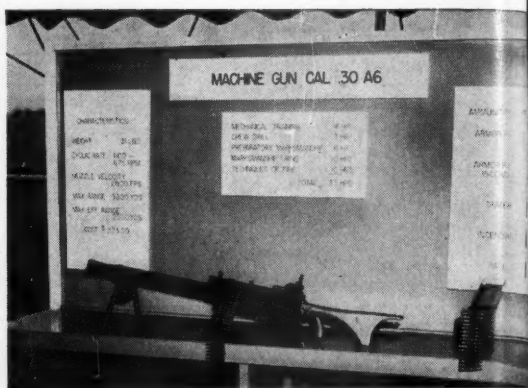
ELEMENTS OF FIELD SANITATION  
AND PERSONAL HYGIENE.

TRAINFIRE TECHNIQUE  
IN SCALE MODEL.

**BASIC COMBAT TRAINING** displays show visitors that soldiering is more than a mere ability to use a weapon, that Army training is not just a collection of useful courses, but rather a program dedicated to preservation of national security. Methods of teaching essential skills stress the need to apply these skills under combat conditions. The need for firm discipline is implied throughout. Failure to achieve minimum proficiency is not merely an individual lack but a threat to lives of others—and to the success of an entire military mission.



CAL. 30 MACHINE GUN . . .



JEEP-MOUNTED RECOILLESS RIFLE  
AND 81MM MORTAR (right)  
ARE AMONG WEAPONS SHOWN.



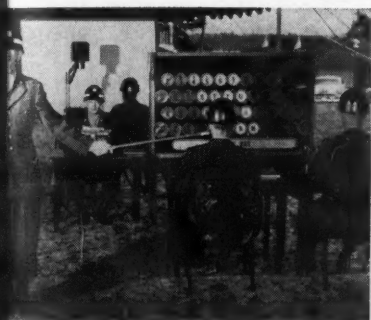
**ADVANCED INDIVIDUAL INFANTRY TRAINING** places emphasis on the importance of the Infantry soldier as a member of a team rather than on the basic soldier who has learned to handle his weapon and has been taught battlefield survival as an individual. Use of weapons in mutual support and coordinated attack is stressed. Improvement of weapons available to small units has greatly increased firepower and tactical capabilities—and this has greatly increased the complexity of training a combat-ready soldier. Appropriate signs here indicate distribution of training time needed to teach fundamental skills.



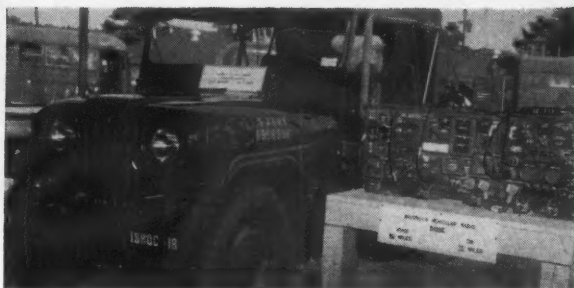
DETAILS OF CLUTCH  
AND TRANSMISSION  
ARE EXPLAINED.



TYPING  
SKILLS  
TAUGHT.

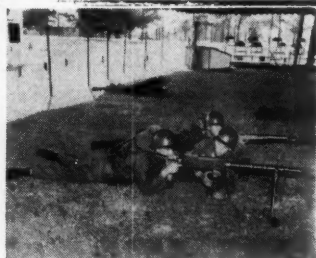
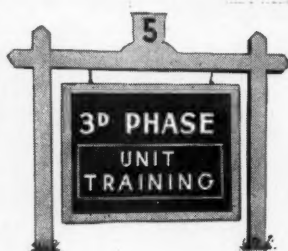


VEHICULAR RADIO  
OPERATION—  
ANOTHER SPECIALTY.



**SPECIALIST TRAINING** utilizes actual training aids in classroom instruction to give visitors a concept of what is taught and how it is taught—and further show the value of such aids in conserving valuable equipment. The presentation is devoted to the six common specialist schools which train selected individuals who have completed basic training. Students actually learning touch typing provide a live display of men receiving instruction. Equipment on exhibit shows the complexity of modern items and stresses the imperative need to maintain it in top working order.





SQUAD WEAPONS INCLUDE MACHINE GUNS, MORTARS



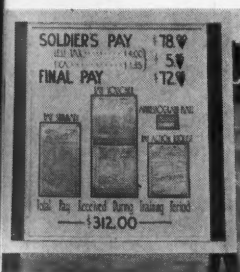
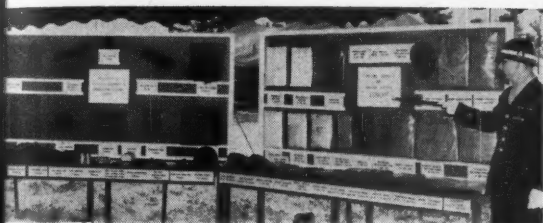
BASIC SQUAD FORMATIONS,  
CREW-SERVED WEAPONS  
SHOW TEAMWORK.



**UNIT TRAINING** consists of actual demonstration of what the soldier learns in his 16 weeks of Infantry training, usually presented by six-months trainees who are actually undergoing the training. Basic squad formations are shown; weapons available to the squad are emplaced and communications are demonstrated; use and importance of firepower are stressed by an instructor-demonstrator; crew-operated weapons are displayed. Importance of team work is emphasized throughout, along with the fact that squad members must be familiar with all weapons to provide replacement anywhere in case of a casualty.



**COST OF  
SOLDIER—  
A LIVE EXHIBIT.**



**ELEMENTS OF  
EQUIPMENT COSTS.**

**SOLDIER PAY  
ANALYZED.**



**COST OF TRAINING** is of direct interest to all visitors, and serves as an exceptionally valuable public relations tool. Costs are spelled out to within a few cents—and are changed whenever increases or decreases occur. Exhibits are so constructed that individual items may be changed without disturbing other parts of the display. Cost per trainee is calculated on pay of cadre and civilian employees evaluated against total number of soldiers trained during a set period. Besides evoking interest among civilian spectators, the display gives visiting allied officers a basis for comparison with costs in their own forces.

*High mobility despite bulk and weight—*

## GOER CONCEPT DEMONSTRATED



DEMONSTRATIONS of two vehicles incorporating the new GOER characteristics—one a 15-ton cargo truck, the other a 5,000-gallon tank truck—were conducted recently by the U. S. Army Armor Board at Fort Knox, Kentucky.

Incorporating features familiar in commercial earthmoving and heavy construction equipment, the GOER characteristics include large diameter, low pressure tires, positive powered wagon steer, and exoskeletal construction—that is, the strength is in the outer skin rather than the interior frame. Exoskeletal design provides less dead weight than conventional vehicles of comparable load capacity.

The GOER concept aims at improved mobility by providing high off-road capabilities, combined with rugged

simplicity and durability. The exoskeletal construction provides floatability also.

In the demonstrations at Fort Knox, the two trucks went through tests matched with existing standard trucks, and were reported to have performed remarkably well in mud, water and rocky terrain.

The two GOER trucks were constructed largely from available items of commercial earth-moving equipment by LeTourneau-Westinghouse Corporation, of Peoria, Illinois, under auspices of the Army Ordnance Tank-Automotive Command, Detroit, Michigan. It was emphasized that while the GOER concept was being evaluated in the tests, exact specifications for any new Army equipment utilizing it have not been finally determined.



Versatility of the vehicles incorporating GOER characteristics is demonstrated during the tests as a huge tank truck shows its ability to negotiate rough terrain while . . .



. . . the 15-ton cargo truck with its exoskeletal frame surmounts an obstacle built to simulate conditions that would be met in the field . . .



. . . and the tanker, hauling 5,000 gallons of fuel, easily negotiates a steep grade with a sharply curved approach.

**Forged in a fiery crucible of sand, smoke and sun, supersonic "fire arrows" undergo testing at White Sands Missile Range where**



**A**NCIENT Indian legends tell of the awesome Thunder Bird with its fiery arrows of lightning that once lived and was deified in the sunswept desert and mountain fastnesses of New Mexico.

Today in that same area, on White Sands Missile Range thundering "birds" flash their lightning across the sky—birds that are neither legendary nor deified but that are man-made, carrying potentials of destruction far beyond the dreams of any medicine man.

These are rockets and missiles undergoing flaming tests at White Sands Missile Range—largest all-land rocket and missile test center in the Western Hemisphere. Here on some 4,000 square miles of sun-baked sand, in a desert basin rimmed by craggy peaks, months and years of research and development are put to the final test not only for the Army but also for the

Navy, Marine Corps and Air Force.

Here rockets and missiles undergo flaming tests in a crucible that determines whether they are ready for use in arming the forces of freedom. These tests assure that the weapons of today are ready to be launched against some possible target of tomorrow.

As in any efficient laboratory, data gained from missile testing have a two-way effect. They are used not only for actual firing, but also by Armed Forces research and development scientists as a basis for further investigations into the entire field of missilery. Thus from the tests at White Sands come not only today's rockets and missiles, but tomorrow's. At the same time, since facilities are furnished to prime contractors, industry gains much knowledge from the work.

Besides facilities for Army missiles, the range houses the Naval



# TORE TODAY'S OBJECTIVES



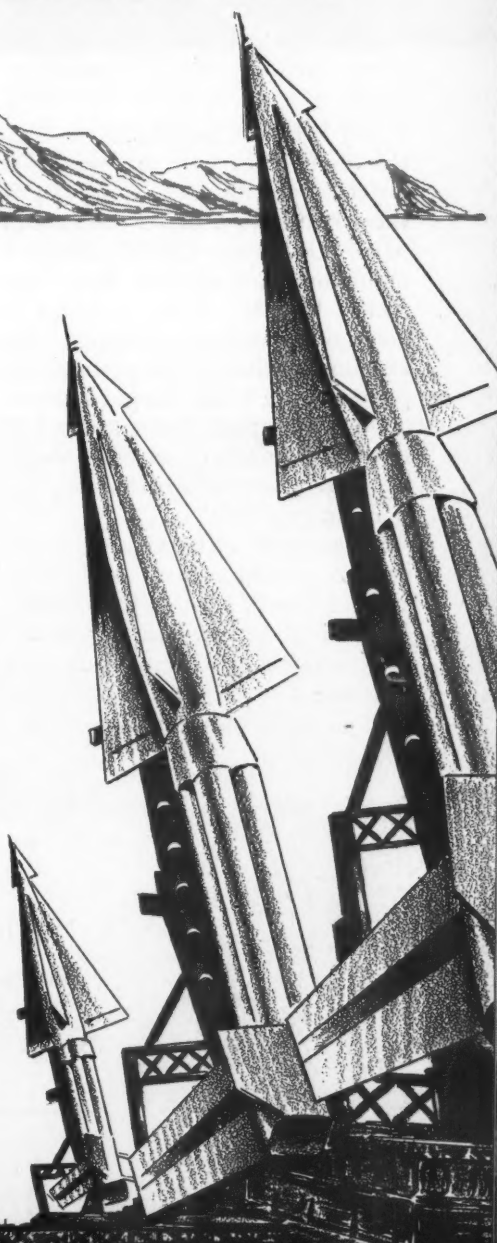
## Major General W. E. Laidlaw

Ordnance Missile Test Facility, located at the Army Missile Test Center. Another activity on-site is the Air Force Missile Development Center at Holloman Air Force Base.

An early phase of activity at the Range was the high-altitude research firings of the Aerobee and Aerobee-Hi. The first Navy Viking research missile was tested in May 1949. Talos, Navy's potent ram-jet guided air defense missile, also was tested here. For the Air Force, the Mace and Matador surface-to-surface weapons and the Falcon air-to-air weapon, all were test-flown. In addition, every Army missile type has been tested here, or now is in process of testing.

### Historic Test Site

KNOWN as White Sands Proving Ground when first established





Framed by spectacular Organ Mountains, headquarters building is hub of enormous activity centering in the 100-mile-long Range.

9 July 1945, the installation by September of that year saw scientists of Jet Propulsion Laboratory (a private organization under contract to Army Ordnance Corps) firing a highly modified wartime Tiny Tim rocket booster. This provided a method of checking equipment and instrumentation in the preliminary phases of the WAC Corporal development program. Soon after, first static tests of captured and rebuilt German V-2 rockets were being carried on.

Since then, Nike-Ajax, first air defense guided missile, was tested as were Hawk, Honest John, Little John, Lacrosse and Redstone. Nike-Hercules, big brother to Ajax, also was tested here, and at present, work is progressing on Nike-Zeus.

Just recently contracts have been let by the Army for Nike-Zeus testing facilities on two Pacific Islands—Kwajalein and Johnston—and at Point Mugu, California, where testing will be accomplished, following the work here.

Negotiations also are now proceeding between the Army and about 60 ranchers for use of some 1,500 square miles of New Mexico desert area north of the existing range to complete test development of the Nike-Zeus anti-missile system.

AT the peak of training and test operations, the Army may have up to 9,000 military and civilian employees while the Air Force has 4,600 and the Navy about 500. More than 3,000 work for contractors



**MAJOR GENERAL W. E. LAIDLAW**  
Commander, White Sands Missile Range  
New Mexico

while another 3,000 are employed by construction contractors. Annual combined payroll of the services is more than \$76 million, spread primarily through the three cities of the area—Las Cruces and Alamogordo, New Mexico, and El Paso, Texas. About 5,000 Army men, civilians and their families reside on post.

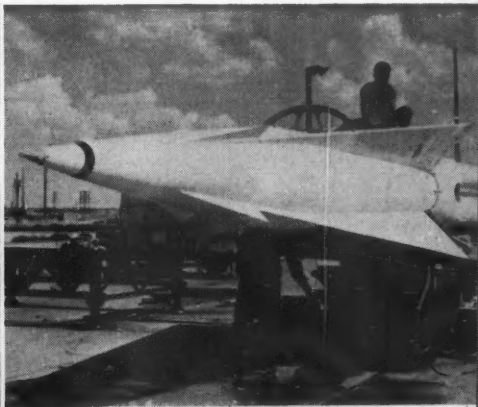
Besides being the largest all-land rocket and missile test center in the Western Hemisphere, White Sands is the busiest of all American ranges. More than 2,400 missiles were fired in "hot" tests during 1958. Current figures indicate that the pace is running well ahead of last year's schedule, with about 50

live firings made on the range daily.

To handle this vast amount of "traffic" calls for close co-ordination between the three services and the prime contractors who utilize the range, all culminating in a complex communications and control console that ties in projects and facilities in the field with the range controller. Contracts have been let for a huge construction program to streamline the control system.

Tri-service scheduling conferences are conducted every Thursday, when the firing schedule is forecast for a week in advance. The actual firing schedule for each day then is firmed and tightened two days in advance. Missile projects

Behind each test firing lie long hours of preparation and careful check which make possible the main drama of countdown, fire and roar, and streaking white vapor trail.





Tracking of missile flights is a complex task requiring scores of instruments of which this specialized helix tracking antenna is typical.

not requiring aerial drone target support are allowed 15 minutes of "slide time" beyond "X" firing time. An additional 15 minutes is allowed when a drone is required. If the slide time elapses without a

firing, the particular test is cancelled and must be rescheduled. By adhering to this strict system, delays and cancellations have been slashed to a minimum.

All of this coordination and control is handled by the Integrated Range Mission (IRM) which is responsible also for recovery of expended missiles. Ease of recovery is a prime advantage of an all-land range. IRM also provides data obtained through radar, telemetry, electronic and optical instrumentation for missile contractors and projects. It further aids in development of new precision instrumentation devices.

### Signal and Ordnance Roles

MAIN Army operational support is provided by the Signal Corps, through the Signal Missile Support Agency, and the Ordnance Corps with its several divisions carrying on specialized work.

The five-station radar chain that extends the 100-mile length of the Range is an activity of the Signal



Scientist Guenther Hintze, who originated method in working on German V-2, prepares to "fire" missile with analog computer.

Missile Support Agency. Units are located at C Station, King I, Oscura Range Camp, North Oscura Peak and Stallion Site to provide a continuous track on a missile fired as far as 90 miles. This system is to be improved under the current construction program.

To illustrate the complexity of the operations, more than 40,000 miles of wire and cable and 240 radio and microwave channels tie together all parts of the vast 4,000 square-mile Tularosa Basin range alone.

The Signal Agency tracks down stray signals that might interfere with the missile test program. It also has jurisdiction over the hundreds of radio and microwave frequencies used at the Range. The Agency contributes to the work of the IRM in developing precise instrumentation devices. Pictorial support, television, electronic warfare and missile geophysics studies by the Agency back up the many and varied activities of the Range.

ACTIVITIES of the Ordnance Corps are carried on by the Ordnance Mission, Special Weapons Division, Electro-Mechanical Laboratories, Environmental Laboratory, and Shock and Vibration Laboratory.

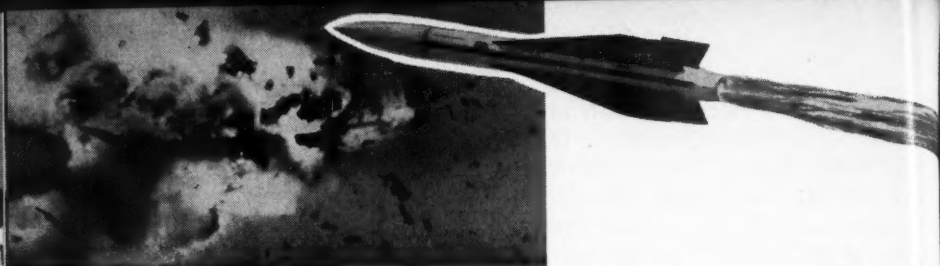
Ordnance Mission carries on the test program for Army missiles. It is staffed by a complex organization of scientists and technicians in the laboratories, and also by missile veterans on the firing lines.

Roaring off during a test is second-generation Nike-Hercules. Today third-generation Nike-Zeus is being tested at the Missile Range.

DECEMBER 1959







Hawk, designed for protection against low-flying aircraft, seeks out and destroys a speeding remote-controlled jet plane target during demonstration firing at the Range.

Special Weapons Division conducts tactical support training of an Ordnance company in use and maintenance of Army missile systems under Ordnance Mission.

Electro-Mechanical Laboratories performs pre-flight testing and associated work on the systems. Within Electro-Mechanical Labs is the Flight Simulation Laboratory where test flights are carried out by electronic computers to yield data that is almost field-perfect. These are conducted on the ground to save time and money over actual test flights.

In specially equipped laboratories, the Environmental Laboratory can reproduce conditions that would be encountered by the various weapons systems undergoing tests—sea breeze complete with salt spray, intense cold, moist jungle heat, rain or fog.

Each missile is put through jarring and pounding contortions in the Shock and Vibration Laboratory. Thus every aspect of misilery from flight stresses and strains, to the bumps and grinds of travel, loading, handling and storage, can be provided without the actual expensive operations.

Ordnance Mission scientists test and perform research on guidance and control systems. Propellants and warheads undergo strenuous inspection in laboratories and in

field tests. Static firings of missile motors are conducted in three static test stands, the largest of which handles up to half a million pounds of harnessed thrust.

Similar research and development work in the laboratory and the field is carried on by Ordnance Mission for the Naval Ordnance Missile Test Facility and the Air Force Missile Development Center.

### City in the Desert

WHITE SANDS Missile Range provides all the facilities of the usual Army post. Some 600 youngsters attend nine grades of the post school, which operates within the local county school system. High school students attend Las Cruces High. An extension program of adult education is carried on by the New Mexico State University at Las Cruces. There also is a high rate of participation in U.S. Armed Forces Institute (USAFI) courses.

A Cooperative Education Program provides five years of college training for prospective scientists. The course consists of six months in classrooms, then six months of on-the-job training. Upon graduation, the co-op student is ready to step into a full-time job in the Range's vital program.

In addition, an active on-post sports and recreational program is conducted, along with off-duty ac-

Photographers make movies to provide one phase of instrumenting test firing of Navy's Talos missile at White Sands. (Navy photo)



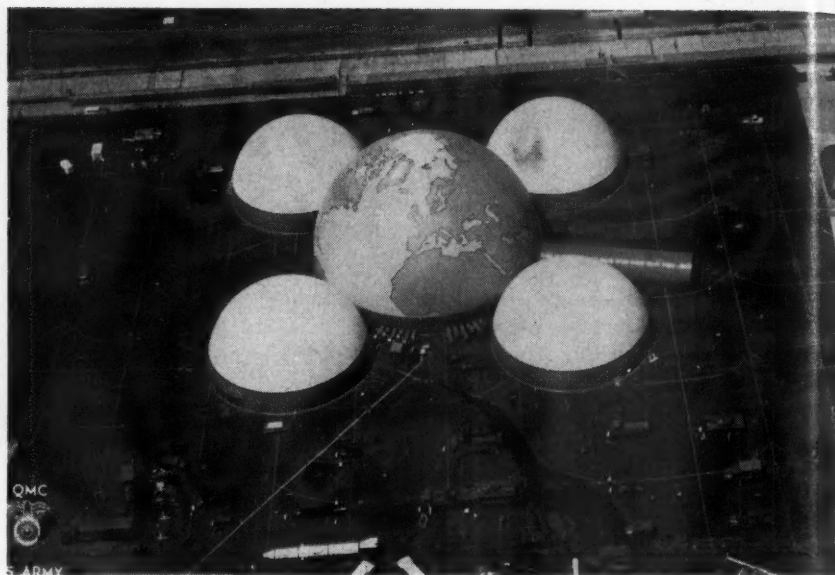
activities for military and civilian personnel.

Security obviously must be strictly enforced. Under the Provost Marshal and a civilian Security Guard force, each employee is carefully screened. Much of the technical and scientific work carried on here is highly classified.

Once a year, during Armed Forces Week, the public is invited to inspect the sprawling post. Last year more than 10,000 people attended—some coming from as far as 90 miles away.

DURING its first 14 years of activity, White Sands Missile Range has grown to great stature—both in its importance to national defense, and also in the recognition accorded by surrounding communities. Continued expansion of the Nation's missile program assures that it will continue to play a key role in the onrushing Missile Age.

**A landmark in air-supported structural design—**



## **THE PENTADOME—**

### **Gigantic Shelter for Missile Maintenance**

**Charles D. O'Leary**

VIEWED by thousands of visitors when it housed a portion of the Army's Armed Forces Day Exhibit in the Washington, D. C. area, the giant spherical shaped structure called Pentadome is designed for use in Army missile ground support operations.

Behind the dramatic impact created by the huge structure with its four peripheral domes lies a story of Army-

industry planning, cooperation, research and engineering development, while ahead lies probable greater use of such structures both militarily and commercially.

Requirement for an air-supported sheltered system in the Redstone program was first recognized in December 1957 by the Army Ordnance Corps. Since air-supported tentage falls within the mission assignment of the Quartermaster Corps, funds were provided by Ordnance Corps while Quartermas-

*CHARLES D. O'LEARY is a staff member of Research and Engineering Division, Office of the Quartermaster General.*

ter Corps assumed technical and contractual responsibility for the project. Future research and development responsibility in the entire field now has been assigned to Quartermaster Corps by the Office, Chief of Research and Development.

While a variety of air-supported missile maintenance and check-out shelters had been developed previously, anything of the Pentadome's magnitude represented a major departure in planning and development. Basic contract for the structure was awarded to Bird-air Structures, Inc., Buffalo, New York.

THE system consists of one spherical dome 150 feet in diameter by 85 feet high while the four peripheral domes are 100 feet in diameter by 50 feet high. The air-lock is 100 feet long, 22 feet wide and 18 feet high.

The large dome has four walk-in and three revolving doors while each small dome has four revolving and two walk-in doors.

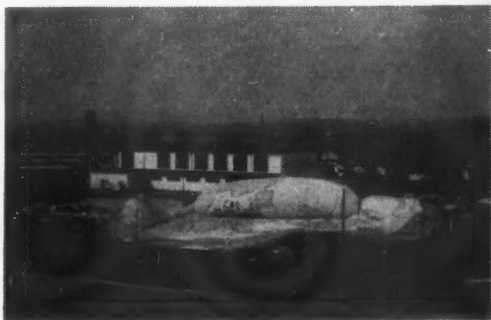
The structures are supported entirely by air supplied under constant low pressure by 12 gasoline or electric driven blowers, each with a maximum discharge of 22,000 cubic feet per minute. The blowers maintain a pressure of about .03 pounds per square inch but can provide up to .09 pounds to stabilize the shelters in high winds. They can withstand a steady 70 mile an hour wind, or higher gusts.

Fabrication required 19,000 square yards—nearly half a million square feet—of vinyl-coated nylon. The coating retains its flexibility at  $-40^{\circ}$  F.

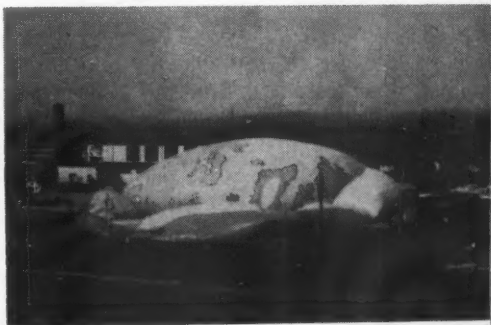
TOTAL volume for the system is 2,143,000 cubic feet. The main dome weighs 8,500 pounds, and each smaller one 2,400 pounds. Together, the five structures of the Pentadome occupy an area 276 by 276 feet, providing a total of 50,000 square feet of covered space. Air blown into the Pentadome may be preheated, cooled or filtered.



Blowing a gigantic vinyl-coated nylon "bubble" that towers high as an eight story building . . .



. . . starts with material flat on ground, then as air rushes in from 12 blowers, each pushing . . .



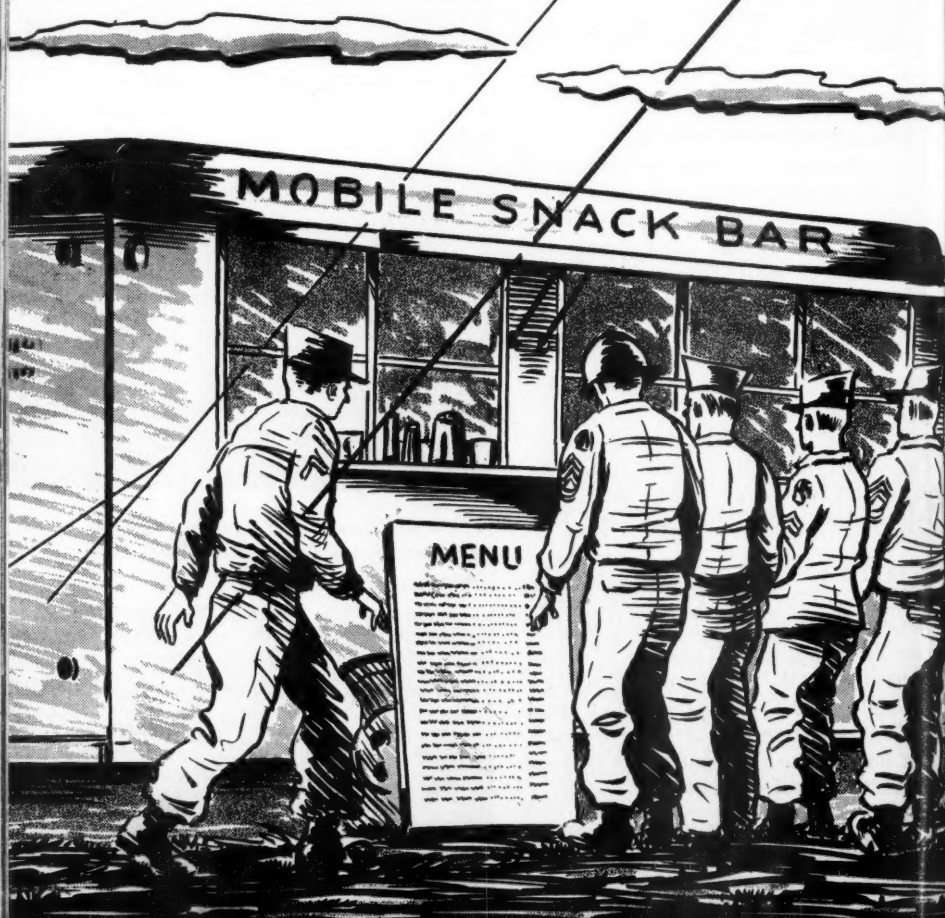
. . . out 22,000 cubic feet a minute, the structure takes final shape, held up by low air pressure.



***Service welfare funds  
benefit to the tune of  
\$50 million a year from***

# MISSILE-AGW

**Major General Harlan C. Parks, USAF**



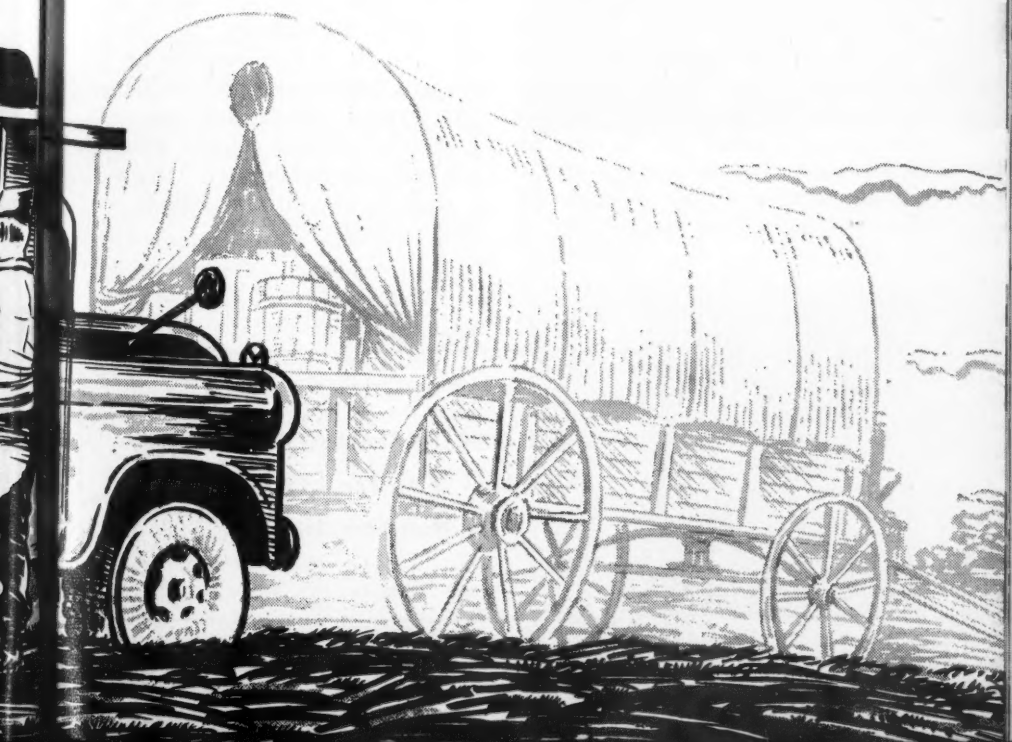


# MERCHANDISING

WITH sixty-four years of service to America's fighting men on record, the U. S. Army and Air Force Exchange Service has developed into the world's most widely dispersed retailing system—a system that operates efficiently every day under conditions that would be considered impossible by most commercial organizations. The chronicle of its growth and development is of interest and impor-

tance to every person who wears an Army uniform.

If the rugged Rough Rider customer of the first exchange were to drop into a modern PX, he would be startled by such innovations as soft drink and ice cream stands, gardening equipment, infant wear (including diapers), houseware items, and other modern conveniences and necessities. He would be further amazed to find that these



## **Missile-Age Merchandising**

services are available no matter where the soldier and airman are stationed. And he would discover, too, that today the average serviceman takes his exchange for granted. He has come to expect it, and to him the provision of exchange service is routine.

But even measured by modern standards of civilian retail chain organization, there would be nothing routine about operating services in 30 foreign countries; in utilizing pipelines up to 10,000 miles long; in operating stores on mountain tops, in the depths of swamps, on towers 200 miles out in the ocean.

In addition to the latest in ships and planes, the far-flung Exchange Service today depends upon dog sleds, helicopter drops, and camels for transportation. Its operations range from exchanges near the Arctic Circle which might serve as few as 200 men to huge training posts in the United States that might have population gains or losses in the tens of thousands over a weekend.

The Exchange Service handles this job profitably for the serviceman, generating an average of \$50 million per year for service welfare funds. At the same time, it

assures that the quality of its merchandise and services is ever improving and its reasonable prices are rapidly becoming more uniform throughout the world.

This efficient world-wide operation was not an overnight accomplishment. Like most evolutions, it has come about slowly, by persistent effort and successive improvements in management.

THE Army and Air Force Exchange Service is currently governed by a Board of Directors consisting of three general officers from each service. As Chief, I am responsible to this Board for the administration and management of the world-wide operation. In keeping with modern organizational trends, administrative, fiscal, and policy controls are centralized but operational control is decentralized.

This decentralized operational control is exercised through the 37 major Army and Air Force commanders throughout the world who are directly responsible for the efficient operation of the exchanges. In carrying out my responsibility, I exercise central control through my headquarters in New York with a staff of 12 military officers and 625 civilians.



**MAJ. GEN. HARLAN C. PARKS, USAF**  
**Chief, Army & Air Force Exchange Service**  
**New York, N. Y.**

At present there are some 2166 exchange facilities in the United States on 175 Army and Air Force installations and 3482 exchange operations on approximately 250 military installations in United States possessions and 30 foreign countries. To run our exchange system, we employ a work force of 65,000 civilians, composed of 20,000 United States civilians and 45,000 indigenous employees overseas.

### Early Development

TODAY's Army and Air Force exchanges are lineal descendants of the first post exchange established by General Order No. 46, a directive of the Secretary of War, dated 25 July 1895. In the beginning these exchanges—which combined the features of reading and recreation rooms, cooperative store and restaurant—were unit-controlled, a welcome relief from the sutler system which prevailed in early days.

Both in terms of services offered and profits generated, they were considered adequate for the typical small-to-medium-sized posts of that era. Significantly the same twofold objective of supplying articles of common demand and cooperative sharing of profits for the recreational benefit of military personnel is still the mission of the Exchange Service.

World War I, however, saw the rise of huge training camps, and our troops went overseas by the thousands. Unit exchanges were largely unworkable. To a considerable extent exchange service was supplemented by canteens of civilian welfare agencies—the Red Cross, YMCA, Knights of Columbus, and others.

In the post-World War I era,



Evolution of present exchange service is shown graphically, from 1862 sketch of typical sutler tent, above, to canteen of World War I era, below . . .



. . . while in the combat-zone exchange of World War II, soldiers could purchase cigarettes and candy, as in this PX in New Caledonia in 1943.





Fifty-five million hamburgers washed down by 250 million cups of coffee, led the feeding activity hit parade for the last 12 months.



Mobile units follow troops on field exercises, above, while snack bars provide favorite meeting places at permanent installations, below.



variations were made in the general pattern, but the basic framework remained unchanged. Independent operation was characteristic of the post exchanges. At large posts, each division was authorized to establish a separate post exchange. Thus, several completely unrelated exchanges might be found at the same installation. There was no uniform merchandising control, no standardization of accounting methods, and little supervision.

### World War II Reorganization

IN 1940, at the request of General George C. Marshall, then Army Chief of Staff, an advisory committee of five prominent merchandising executives was selected by Donald Nelson, Director of the War Production Board, to survey the existing exchange structure. Their recommendations set forth the framework of the Army and Air Force Exchange Service as it exists today.

Concurring with the feeling among Army officers that exchanges were "second only to the soldier's mess as a factor in building his morale," and noting that there was a wide variation in the efficiency of exchange operation, the committee recommended establishment of a central organization to "initiate policies, provide methods for producing funds, and provide uniform methods of operation, personnel, merchandising, purchasing, audit, and control."

As a result, the Army Exchange Service was established within the Morale Branch of the War Department on 6 June 1941. Later, it was placed under the Director of Administration of the Services of Supply, and then became a part of the



Warm cheer went out to cold troops along the 500 miles of Alaska Railroad during World War II, as rail-mounted truck pulled a trailer from Fort Richardson.

Special Services Division in the Office of the Director of Personnel, Army Service Forces.

Day-to-day operations of exchanges were handled at post level, subject to supervision by the Service Command, which in turn pursued policies established by the Army Exchange Service through regular command channels.

The Army Exchange Service was not financed from appropriated funds. Until mid-1944 the primary source of capital for financing new exchanges was the Defense Supplies Corporation, which lent money to the Army Exchange Service at two percent interest. The Exchange Service, in turn, offered individual

exchange loans at the same rate of interest. After 1944, when the original loan had been repaid in full, all loans were financed solely from the Army Exchange Fund.

THE record of the Army Exchange Service in World War II was that of a successful business organization which at the same time made immeasurable contributions to sustaining the morale of every soldier. Its achievements amply demonstrated that intelligent planning and careful organization pay off.

Still there remained a need for stability in prices and assurance of adequate dividends for sustaining





## DID YOU KNOW . . .

- World-wide, A&AFES employs 65,000 civilians who fill 1,300 different kinds of jobs in more than 30 countries. One out of six employees has five or more years of service with the Exchange Service.

- Exchange earnings — \$50 million a year in recent years and more than a half-billion dollars since World War II—comprise the major share of Army and Air Force welfare funds. PX profits are returned to the serviceman periodically in the form of the important on-post leisure and recreational activities such as libraries, day rooms, athletic equipment, hobby shops and service clubs.

- Seventy-five percent of the price of retail merchandise in your exchange represents cost of goods; the balance represents earnings requirements and the cost of doing business. Prices on 1,000 necessity items are uniform world-wide. A typical CONUS exchange stocks 6,000 items—available to the serviceman at savings averaging 20 percent.

- Cafeteria, snack bar, automotive service station and activities such as barber, laundry, shoe repair shops and similar services account for 25 percent of total A&AFES sales volume. Whether operated direct or by concession to any of 6,000 independent businessmen world-wide, all are part of the necessary military community shopping services provided by your exchange, regardless of where you may be stationed today—or tomorrow.

morale on all installations, regardless of size. This led to another step toward centralization—the regional concept of exchange management in 1947. With it came centralized welfare funding with payments on a per-man, per-month basis—a real boon to small bases.

The Army Central Welfare Fund was given supervision of profit goals, planning, budgeting and fiscal controls to insure sufficient dividend payments to supplement appropriated welfare funds. A technical assistance program also was begun, leading to introduction of modern merchandising techniques and improved customer service.

### Joint Service Operation

WITH the formation of the Air Force as a separate service, the Exchange Service became a joint agency of the Departments of the Army and Air Force—and the Army and Air Force Exchange Service was born. This was the beginning of the partnership arrangement that is functioning so well today.

In every sense the Army and Air Force are partners in the Exchange operation, conducting business under the same policies, sharing the same management, and contributing to the same profit pool. The resulting welfare fund dividends are paid out on a per-man basis. Thus, both services share not only in the responsibility for efficiency of exchange operations, but in the results.

In 1949, in response to complaints from retail merchants that exchange privileges were being abused, the Congress imposed restrictions on domestic exchange operations. With the subsequent merchandise and services curtail-

## YOU CAN HELP

**your exchange do an even better job for you!**

● **RECOGNIZE ITS LIMITATIONS.** CONUS exchanges are limited in merchandise to the authorized list contained in regulations (an outgrowth of the Congressional hearings of 1949) and all exchanges are limited to serving authorized personnel only.

● **OBSERVE YOUR OBLIGATIONS** by refraining from privilege-abusing practices such as purchasing for unauthorized personnel; by producing your identification willingly when requested (PX sales personnel are *required* to demand identification from non-uniformed customers); and by doing nothing which will compromise the future of the exchange privilege—which, according to Congress, must be protected by the serviceman who uses it or be lost if he abuses it.

● **CONTRIBUTE POSITIVE IDEAS.** Constructive comments can be helpful to your PX management. Your ideas are welcomed. Most PXs have a customer comments box and PX management will act on suggestions that make sense. Your PX officer maintains an open door policy and is anxious to do everything within his power to satisfy customers and improve quality of service wherever and whenever he can.

ment as spelled out in Army Regulations 60-10, exchanges sought ways of streamlining their operation, and experiments with self-service and self-selection began.

In 1950, the Korean conflict tested the adaptability of the Exchange Service to emergency conditions. Problems of getting the welfare fund program on its feet in Korea indicated the need for a sounder financial structure for the Exchange Service as a whole; and this ultimately led to fiscal integration of all Army and Air Force Exchanges world-wide in 1956. This was accomplished through consolidation of resources of all exchanges. Under this plan, the Exchange Service has joint use of all resources, but ownership is retained by individual

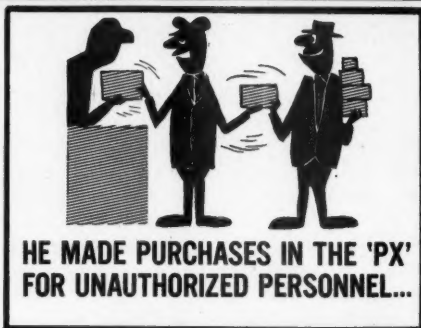
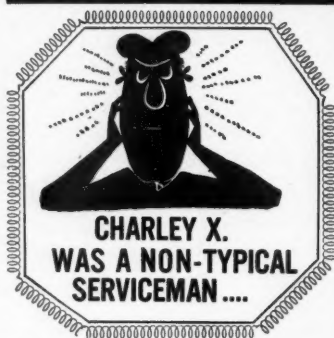
services. A unified accounting system also was established, and the Chief, A&AFES, was given authority to transfer funds.

### New Command Concept

ALL of the foregoing steps resulted in increased service and customer satisfaction, yet as the Exchange Service became more centralized, there arose some questions as to areas of responsibility. Some commanders felt that the Exchange Service was responsible for many of the things that were by their nature the prerogative of command; others felt that they could not exercise their authority in the operation of their exchanges.

A balance had to be set between command prerogatives and sound,

# \* ABUSES DON'T PAY



Emphasizing the fact that with privileges go certain obligations, posters such as this one constantly remind those who now enjoy the privileges the need for refraining from abuses that may eventually result in their loss, and compromise future of exchanges.

No matter where he may be, serviceman is aided in sending gifts home, as in this PX located in Korea.



modern business practices. In order to provide a management that was capable of intelligent planning, it was necessary to centralize control over policy; however, in order to provide the flexibility that management must have to meet rapidly changing conditions, it was necessary to decentralize operational control and to delegate not only the operating responsibilities but also the authority to go along with them, to operational levels.

Under a revised regulation published in 1957, responsibility and authority for the operation of exchanges is clearly that of commanders. The Exchange Service provides technical assistance and policy through command channels.

The remarkable record of exchange progress in the past two years is more than ample evidence that this new command management concept is just what exchanges need to keep them in step with the

Small units such as this Nike site with only 100 men near New York City, get same services and benefits as largest military installations under today's exchange system. Here two soldiers examine uniform items.







Equipment and facilities for off-duty recreation, such as this typical unit day room, are provided at installations all over the world from Exchange Service profits.

rapidly changing armed forces of the missile age.

Despite drops in troop strength, rises in the cost of merchandise, and increases in all overhead costs with no corresponding drop in the profit requirement, the Exchange Service has been able to operate more economically, discharge all its old financial obligations, and meet all its dividend requirements. Moreover—and best of all from the

customer's viewpoint—it has been able to reduce prices on many items of retail merchandise.

In 1958, the first step toward uniform world-wide pricing was taken with standardization of selling prices of 1,000 individual items at all exchanges.

### The Future

WHAT can the soldier expect of the exchange of tomorrow?



Personal service shops are run on concession basis by thousands of small businessmen in Exchanges in CONUS.

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First he can expect overall improvement in the quality of operations, including merchandising, services, facilities. This is the most important of exchange management's current objectives.

He can expect more modernization, more new exchange facilities. The Exchange Service cannot provide the required service with run-down facilities. Commanders, as well as the Exchange Service, have recognized that attractive, varied, and comfortable facilities are the foundation of good service.

The serviceman can expect more expert assistance from friendly exchange sales personnel as employee training programs are intensified.

He can expect more vending operations, with attractive modular fixtures designed to help him shop more easily.

IN SHORT, the soldier can expect the best from Exchange Service, for that is our goal. Truly, insofar as our success will have a direct effect on the "livability" of Army life, every Army man has an immense stake in the competence, skill, and effectiveness of exchange management.

The support of every soldier and airman can go a long way toward helping the Army and Air Force Exchange Service add to its service to America's fighting men.

Today's modern stateside PX with good lighting, well-arranged departments serviced by highly trained clerks, handles 6,000 items, serves family as well as troop needs. Improvements in merchandising, services, facilities are constantly in process.



**Commanders can harness the tremendous public relations potential of the civilian workforce to remedy a condition of**



**Eugene F. Hart**

**T**HE United States Army is missing a big bet in its efforts to gain greater public understanding. It has in its public relations arsenal a weapon of dynamic force—one that has rarely been utilized to its maximum.

Commanders concerned with the Army-wide effort to generate public understanding and support at the grass-roots level especially should not overlook this powerful force—

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**EUGENE F. HART** is Technical Liaison Officer, Office of the Deputy Chief of Staff for Logistics, Department of the Army.

the 340,000 Army civilian employees in the United States.

These employees represent a cross-section of the Nation's population and are an integral part of the American scene. Employed in every facet of the vast Army program, they can contribute importantly to a fuller and more intelligent appreciation of our Army—its objectives, problems, needs and progress.

Given proper motivation, this potentially dynamic force can serve Army public relations in a double-barreled role—as both *audience* and

# HIGH VOLTAGE-- LOW CHARGE



*spokesman.* But first the Army commander must give impetus and direction to the effort. He is the one who must "charge" this high voltage power pack.

Despite the fact that the U. S. Army has undergone, and is continuing to undergo, a drastic modernization program in equipment, organization and mission, the belief nevertheless persists in many minds that the Army is still back in the foot-slogging, mud-splattered days of World War I.

Many still visualize the dough-boy crawling out of a trench and through the barbed wire of no-man's-land, clutching his 1903 Springfield rifle. To those persons

whose memories do not go back that far, the picture of Bill Mauldin's "Willie" or "Joe" all too often typifies their concept of today's soldier.

IN INDUSTRY and the business world, it is axiomatic that a company is no better than the product it makes. It follows, too, that the company is not likely to succeed unless it lets the world know that it has a good product.

The Army has such a product. It also has 340,000 civilian employees and their families to "advertise" that product across the Nation. Here is a tremendous public relations asset waiting to be used.

## High Voltage—Low Charge

The Army can take a leaf from the book of large private firms that excel in this area. Bell Telephone Company, for example, has about the same number of employees as the Army. Its service, too, affects each of our lives. A profit-type organization and at the same time a public service organization, it is essential, first, that it perform its vital service promptly and efficiently and, second, that it let the world know that it is fulfilling its mission and operating efficiently.

Just how does Bell accomplish this? If you have ever known a telephone company man, or have ever chatted with the fellow installing the phone in your home, you probably know the answer. His ready knowledge and enthusiasm about the company are tangible evidence of high morale. This has not just happened. It was planned that way. Telephone men and women, numbered in the hundreds of thousands, are imbued with the necessity for creating a good sharp image of the company in the public mind.

The Army recognizes the need for a similar approach. Robert Willey, Director of Civilian Personnel, has said "One way of improving the public image of the Army is to make sure that among your civilian employees there is understanding of the mission and importance of their jobs and a feeling that they are a part of the team, recognized as being salesmen within their communities . . ."

IF HE is to serve as an effective aid to the Army's public relations effort, the civilian worker must be kept informed on a regular basis concerning issues of vital impor-

tance to the Army. He should know about:

- The Army's position on current issues.
- Major developments of the Army in the research and development field.
- Accomplishments which demonstrate the importance of Army contributions to national defense.
- Problems and progress in connection with modernization of the Army.
- His installation's mission and the part it plays in the overall Army mission.
- The relationship of his job to the organization.
- Policy matters of overriding personal concern to the employee—pay, leave, promotion, and the like.
- Decisions that may affect the installation—its mission and future—before the employee hears of them through the rumor mill.

If the employee is kept informed he will soon develop a sense of "belonging," of being a significant member of the team. Only then will he be able and eager to help "advertise" the Army.

At present there is little informational material which is prepared centrally to provide a civilian-type orientation. There is, however, a large amount of background information published by the Department of the Army which certainly could be used to keep our civilian employees up-to-date on current Army thinking. Basically, the problem is one of recognizing, at all levels, the need to keep Army employees informed, and then developing appropriate channels for the timely flow of information.

Major speeches by the Secretary of the Army, Chief of Staff and other high ranking military and civilian officials, for example, provide ready-made sources of information concerning the policies, philosophy, and position of the Army as it relates to internal, national, and international events and problems. However, unless copies are made available to all installations on a timely basis, their value to employee information programs is lost.

Releases issued by the Department of the Army through the Defense Department are still a further source of information, especially since they touch on a wide range of vital subjects—modernization of the Army, STRAC, the status of research and development, and many others. Another authoritative source is this publication — *Army Information Digest*, official monthly magazine of the Army.

In the personnel policy field, the *Personnel Letter* published by the Office of the Deputy Chief of Staff for Personnel provides invaluable information. Still other sources are the various clip sheets and news releases of the Army Information Program, and special brochures published by Department of the Army and by the various Technical Services.

Many corporations distribute their annual stockholders' report widely as a means of keeping employees informed. The Army's annual *Progress* brochure may be similarly used. Official films available from Signal Corps film libraries across the country can also be utilized to good advantage in any employee orientation program.

Use of this material by Army

Information and Technical Liaison Officers should be carefully coordinated with the Civilian Personnel Officer to determine how best to incorporate it into a civilian employee orientation program.

On the working level, there are a number of ways of keeping employees informed. A method which may prove highly effective at one installation might be a complete failure when applied elsewhere. In some cases, a combination of these methods will prove highly successful. Here are some principal methods of reaching employees and spreading the word:

► Make complete use of the orientation period for new employees. The orientation period, already established by regulation, can be expanded to include general information about the Army and the installation in addition to normal job-connected data. It should be recognized, however, that the new employee can only absorb so much basic information at the initial orientation. The briefing should therefore be followed by a planned information program.

► An attractively printed brochure giving a brief history of the installation, its functions and mission. This is a desirable aid in presenting the Army's overall mission to employees, old and new. Fort Monmouth does this effectively.

► An information bulletin using Army- and Command-wide as well as local news sources. It should be published on a regularly scheduled basis, and presented in such a fashion that it will be read not only by the employee but also by his family.

► Special information bulletin boards for the civilian employees.



The material should be current, attractively displayed and changed at frequent intervals.

► Maximum use of motion picture films showing Army-wide and installation activities. Recently, upon seeing such a film, some employees with as much as thirty years' service remarked that this was the first time they had even seen the inside of buildings on their installation, other than the one in which they worked.

► Maximum use of the installation newspaper. The Civilian Personnel Officer should regularly contribute an informative column on civilian personnel affairs. Civilian accomplishments should be given prominent mention.

► Installation Family Day, during which employees bring their wives and families to visit. This gives the rest of the family a chance to see where Dad works, meet the supervisors and the Commanding Officer, and socialize generally.

► Use of pay inserts. If the message can wait until pay day, this is a guaranteed method of reaching a maximum audience.

At the Atlantic Terminal Transportation Command in Brooklyn, all key civilians attend Officers' Call. Going one step further, the Public Information Officer conducts a series of public speaking classes for key personnel, military and civilian, who are frequently called upon to address social and

civic groups in their communities.

AT every level, it not only is necessary to keep Army employees informed about Army matters; it is equally important to encourage them to carry the Army story into the community. Formally, in group discussions, and less formally in personal contacts, an informed Army employee can be just as effective and as willing a salesman as the telephone employee.

A good employee information program calls for realization by the Commander of the public relations potential of a well-informed workforce, and for joint effort and even closer liaison between the Civilian Personnel Officer and the Public Information Officer. Each of these staff officers has access to certain channels that may not be immediately available to the other. By pooling their know-how, these two members of the Commander's staff can be a key factor in setting up a workable information program for Army civilian employees.

Nor can these two alone master such a formidable task. To weld the Army civilian workforce into articulate spokesmen for the Army requires close teamwork on the part of all concerned. Command support up and down the line is essential. The ultimate goal is One Army speaking with one voice — military and civilian — telling the story of today's modern Army.

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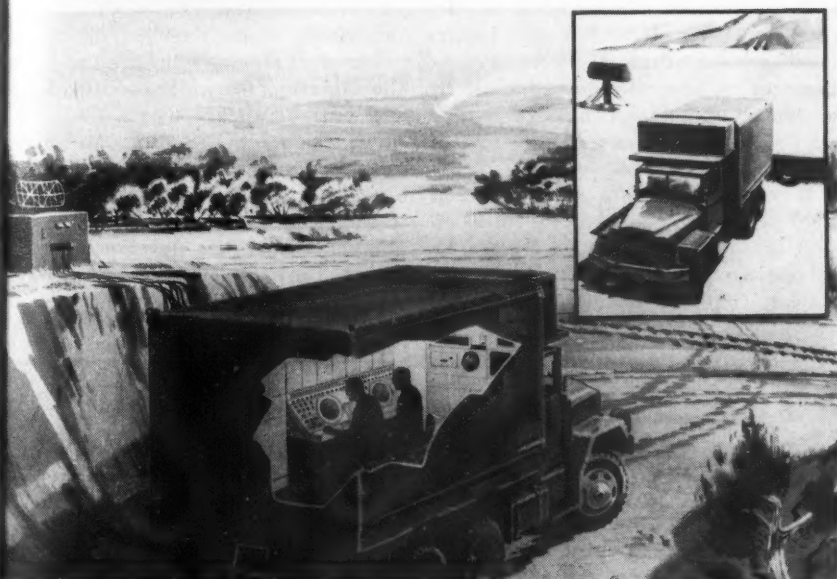
## ARMY INFORMATION DIGEST INDEX

AN INDEX of 1959 issues of ARMY INFORMATION DIGEST is now being prepared. A selected distribution will be made upon publication.

Copies of the 1958 index are immediately available on request to the Editor, Army Information Digest, Cameron Station, Alexandria, Virginia.

for control and coordination of missile batteries  
at battalion level in a field army—

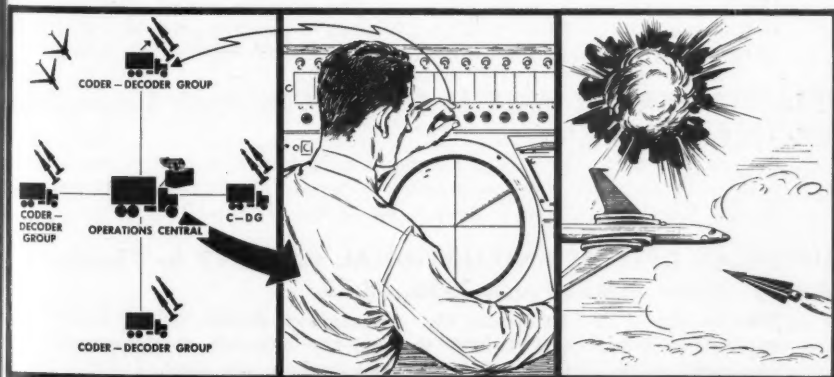
## New Tactical Air Defense System



HOSTILE aircraft attempting to enter the zone of defense of a field army would be swiftly tracked and brought under devastating fire through use of a newly developed "vest pocket" tactical air defense system now being deployed overseas by the U. S. Army.

Designated AN/MSQ-18, the system

is designed to ensure almost instant destruction of enemy aircraft. The new system gives the air defense commander immediate control over widely scattered antiaircraft missile batteries. Complex electronic data messages go out in milliseconds compared to existing systems that require human voice



transmittal with possibility of error.

The ruggedly built, highly miniaturized electronic system is mounted in standard, heavy-duty 2½-ton trucks, consisting of an operations central and several battery equipments called coder-decoder units. These units are located at Hawk or Nike missile batteries where they convert electronic data from digital to analog form for use by currently operational missiles. One operations central can handle several coder-decoders.

When in use, data on range and azimuth of attacking planes is funneled into the operations central from a local antiaircraft detection radar. Information (both on friendly and hostile

planes) is displayed on radar indicators. A commander can direct antiaircraft defense by making assignments of targets to various batteries. On the other hand, the status of any battery's defense can be relayed back through the coder-decoder to operations central where the commander may use the information, or may relay it on to higher headquarters for wider coordination of the antiaircraft fire.

The new MSQ-18 also is an integral part of the Signal Corps Missile Monitor field army air defense system now undergoing evaluation tests. The vest-pocket system was developed for the Signal Corps by Hughes Aircraft Company at Fullerton, California.

### **—Keeping Current With the—**

## **CONTEMPORARY MILITARY READING PROGRAM**

A synopsis of selected books included in the Army Contemporary Military Reading List of professional interest to Army members.

**ROCKETS, MISSILES AND SPACE TRAVEL** by **Willy Ley**, Viking Press, Inc., 1957, 528 pp. \$6.75.

An introduction to the history of rockets and space travel, and an elementary theory of rocket design, including a simple mathematical statement of fundamental principles by one of the small group of pre-war German rocket enthusiasts now known as a world expert and prolific writer on the subject.

**INFLUENCE OF FORCE IN FOREIGN RELATIONS** by **William Dilworth Puleston**, Van Nostrand, 1955, 254 pp. \$4.50.

Lectures delivered by the author in 1945 at the School of Advanced International Studies have been amplified and new chapters added after ten years of observation of the efforts of United Nations to preserve peace by use of force. These efforts are compared with methods historically employed in Europe.

**STRATEGY FOR THE WEST** by **Sir John Cotesworth Slessor**, Morrow, 1954, 180 pp. \$3.

A strategic program for driving Communism back into its borders and keeping it there, by air power armed with atomic weapons. The author was Commander of RAF Coastal Command in Britain during World War II.

**AMERICAN DEFENSE AND NATIONAL SECURITY** by **Timothy W. Stanley**, Public Affairs Press, 1956, \$3.75.

The author objectively traces the evolutionary pattern and describes the structure of defense and national security—the processes, the people and the interrelationships between them that make the structure work.

# NEWS

## of professional interest

### Allied Training Survey

A team representing four U. S. Army service schools now is visiting counterpart schools in France, Italy, Spain, and Greece to establish close contact with the Allied schools and to devise more rapid methods of transmitting latest developments in military doctrine. The team consists of representatives of the U. S. Infantry School, Fort Benning, Georgia; U. S. Army Armor School, Fort Knox, Kentucky; U. S. Army Artillery School, Fort Sill, Oklahoma, and U. S. Army Command and General Staff College, Fort Leavenworth, Kansas. The visit is a project of the Mutual Assistance Program for coordinating military training with U. S. Allies. The team will submit findings to the Commanding General, European Command, along with recommendations to improve training and facilitate rapid transmission of military doctrine.

### Nike-Zeus Testing Sites

Eventual testing of the Nike-Zeus anti-missile system will be conducted on two Pacific Islands and at one spot on the U. S. West Coast. According to Army Ordnance Missile Command, contracts totalling some \$4.5 billion have been awarded to construct facilities on Kwajalein and Johnston Islands and at Point Mugu, California. Nike-Zeus is third in the Nike missile family built for the Army by Western Electric Company. It is designed to become the Nation's first weapon to intercept intercontinental ballistic missiles.

### Chemical Corps Plant

The former Dana Heavy Water Plant of the Atomic Energy Commission at New-

port, Indiana, is being converted into an Army Chemical Corps production facility under contract by the Food Machinery and Chemical Corporation of New York. Originally built by the AEC in 1950-51, the Dana plant had been maintained on a standby basis since June 1957, following determination that the United States had an adequate stockpile of heavy water.

### Fire Fighting Compound

Before you can say "monobromotri-fluoromethane," the fire ought to be out through use of a new fire fighting compound which has been adopted for emergency use at Army installations. Considered twice as effective as any other extinguishing agent against liquid fuel and electrical fires, the compound can be mixed with helium or nitrogen to create a combustion-free atmosphere in which to conduct dangerous jobs safely.

The extinguishing compound can be used in temperatures down to 65° below zero, is non-toxic and non-corrosive. Developed by the Army Engineer Research and Development Laboratories, Fort Belvoir, Virginia, it is being produced by Fireguard Corporation, Northbrook, Ill.

### Incentive Awards

Twenty percent of employees in the Department of the Army made suggestions in the Incentive Awards Program during the last fiscal year, it was announced at the Third Annual Awards Ceremony held in October at the Pentagon. Reports showed that 74,668 suggestions were turned in between 1 July 1958 and 30 June 1959. About one out of four suggestions were adopted, resulting in estimated savings to the Government of \$15,279,189. Awards totalling \$312,227 were granted.

## News of Professional Interest

### Ordnance Office in France

Establishment of an SS-10/11 missile field office in Paris has been announced by the Army Rocket and Guided Missile Agency, Army Ordnance Missile Command. Personnel of the new office will work primarily with the French government and Nord Aviation Company, developer of the new mobile anti-tank weapon system. The SS-10 now is being procured for issue to American troops while the SS-11, a larger version, is being evaluated for possible Army use.

### Area of Assignment Options

Under newly announced procedures, greater choice in "area of assignment" is

being given to individuals who reenlist immediately or within 90 days of separation. Previously reenlistees were restricted to assignment within Continental United States to the Army area in which they were separated, and were required to submit requests for school and overseas assignments several weeks before expiration of terms of service. Under the new program, immediate assignment and school quota information will be obtained for CONUS applicants by telephone and every effort will be made to assign reenlistees to the initial duty station or service school of their choice. Those holding a surplus MOS may not be reenlisted under this option, unless such individuals agree to retraining.



FLYING SAUCERS?—the Army version is this 25-gallon free fall container used for air-dropping supplies of gasoline, water, foods or other liquids to small combat detachments. Made of natural and synthetic rubber molded in two places, it has a flexible rim which keeps it horizontal during drop. A metal screw cap molded into the top surface permits easy filling and emptying.



## Man and Firepower

Scientists and engineers engaged in defense research and development heard discussions of human engineering techniques and concepts at the fifth annual Human Factors Engineering Conference held at Redstone Arsenal, Huntsville, Alabama, in September. More than 200 scientists and engineers from the Armed Forces, industries and universities performing development services for the Army attended the conference sponsored by the Office of the Chief of Research and Development.

Dr. Lynn E. Baker, chief psychologist of the Army, was chairman. Lieutenant General Arthur G. Trudeau, Chief of Research and Development, was keynote speaker.

Purpose of the meeting was to provide scientists and engineers engaged in defense research and development with the latest in human engineering techniques and concepts to aid them in figuring human factors early in design of new weapons and equipment.

One highlight was a report on basic research on the natural protective mechanism in the middle ear which prevents hearing loss from explosions and gunfire.

The report indicated that a conditioning tone or a harmless protective noise just before firing large weapons activates the middle ear's defensive mechanism to give the operator "built-in" hearing protection. Captain John L. Fletcher, an Army psychologist, presented the report.

In another presentation, Dr. Earl Davy of the Army Chemical Corps described how researchers at the Army Chemical Center are endeavoring to discover precisely how the new "psycho gases" affect humans.

Dr. E. Ralph Dusek, Chief of the Psychology Branch of the Environmental Protection Research Division of the Quartermaster Corps, reported on manual performance and dexterity as affected by cooling and rewarming the hands. Studies demonstrated that as long as the hands are warm regardless of temperature of the rest of the body, manual performance is maintained at a high level of efficiency. Studies on face masks and creams that would protect against atomic blast heat also were described.

Other discussions dealt with simplification of Sergeant and Pershing missiles to enhance man-machine compatibility.

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## **News of Professional Interest**

### **Army Research Status Reports Available to Public**

INFORMATION on current status of more than 2,300 Army research projects has been placed in distribution channels through ARTS — the Annual Research Task Summary of the Army. Six of the nine volumes of the Summary, which was initiated five years ago, are being made available for more general public use. Purpose is to provide a factual basis for review and analysis of the Army's research program, and to effect coordination with research supporting organizations outside the Army.

PROJECTS now are carried on by agencies at 59 different installations, involving annual expenditure of about \$88,000,000 in ten major scientific fields and 74 sub-fields. The program, directed principally

through the various Technical Services, involves nearly 400 colleges, universities, nonprofit institutions and outside contractors.

The six unclassified volumes may be purchased from the Office of Technical Services, Department of Commerce, Washington 25, D. C. The other three, including an index, recapitulation of funds and a listing of classified tasks, are available together with the six unclassified books to eligible Army and other governmental agencies through the Office of The Adjutant General of the Army. The unclassified volumes deal with biological, medical, social and behavioral sciences and operations research, chemistry, physics, mathematics, geophysical sciences and engineering and material technologies.

# TIPC\*

**\*To  
Insure  
Prompt  
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See Army Circular 310-72 (18 June 1959) which directs Commanders to request sufficient copies to permit prompt circulation, using DA Form 12-4 (1 April 59), (Requisition for Initial Distribution of Publications and Blank Forms).

#### **DISTRIBUTION:**

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# HOW'S YOUR ETIQUETTE?

Emily Post on Privilege

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CHICAGO, ILLINOIS  
NEWS, FEB. 11, 1958

## **ETIQUET**

# How to Tell Friend 'No Sale at PX'

By **EMILY POST**

"My husband is in the service and consequently we have the privilege of buying at slightly reduced prices at the base exchange.

"A friend of mine whose husband is not in the service has asked me several times if I would buy some things for her when I do my shopping. She is not entitled to this privilege and I think it is an imposition. Can you suggest a tactful way to refuse without seeming rude?"

• • •

**YOU CAN** and should tell her that as it is strictly against the rules, your husband will not allow you to buy anything at the base exchange that is not for your own use.

*"for the defense of American liberty"*



ONE ARMY

